

Access DB# 116253

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Callie Shoshu Examiner #: ~~000000~~ Date: 3/8/04
Art Unit: 1714 Phone Number: 202-272-1123 Serial Number: 09/806,340
Mail Box and Bldg/Room Location: Rensen 10D15 Results Format Preferred (circle): PAPER DISK E-MAIL
(e-mailbox)

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Yellow Hue Compound and Aqueous Ink for Ink-Jet
Recording the same
Inventors (please provide full names): Yoriaki Matsuzaki, Tadashi Okuma,
Ryu-ji, Osamu Kohgo
Earliest Priority Filing Date: 7/26/00

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please find the quinophthalone and pyridine
azo compounds of claim 1.

For claim 11, only the pyridine azo compound
is being claimed. I have found similar compounds
but cannot find anything with R₁₂ + R₁₃ as
required in the claim.

—Thank You

(112 (2) on the pyridine azo structural diagrams)

STAFF USE ONLY

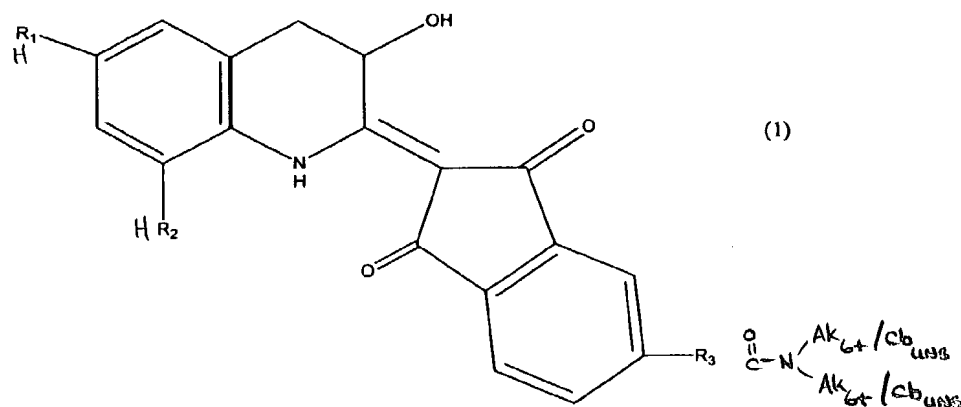
	Type of Search	Vendors and cost where applicable
Searcher: <u>EL</u>	NA Sequence (#) _____	STN <u>\$404.60</u>
Searcher Phone #: _____	AA Sequence (#) _____	Dialog <u>(3)</u>
Searcher Location: _____	Structure (#) <u>✓</u>	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr.Link _____
Date Completed: <u>3-11-04</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>10</u>	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: <u>65</u>	Other _____	Other (specify) _____

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

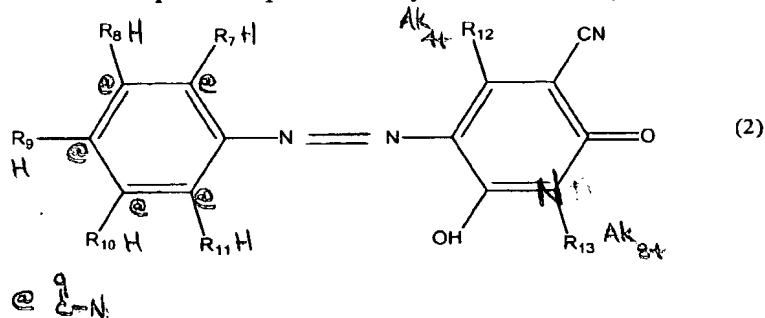
1. (Previously Presented) Aqueous ink for inkjet recording comprising water and a resin as an emulsion, wherein the resin is colored with a water-insoluble coloring matter selected from the group consisting of a quinophthalone compound represented by the formula (1);



wherein

R_1 represents a hydrogen atom or an unsubstituted or substituted alkyl group having 5 or less carbon atoms, R_2 represents a hydrogen atom and R_3 represents -CONR₄R₅ in which each of R_4 and R_5 independently represents an unsubstituted or substituted alkyl group having 6 or more carbon atoms or an unsubstituted or substituted aryl group;

a pyridine azo compound represented by the formula (2);



wherein

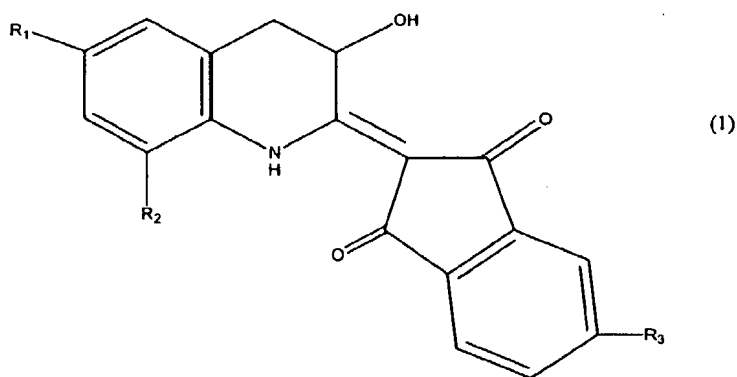
each of R_7 to R_{11} independently, represents a hydrogen atom, a halogen atom, an unsubstituted or substituted alkyl group, an aralkyl group, an unsubstituted or substituted alkoxy group, an unsubstituted or substituted aryl group, an unsubstituted or substituted aryloxy group, a hydroxyl group, $-NR_{14}R_{15}$ in which R_{14} and R_{15} independently, represents a hydrogen atom, an unsubstituted or substituted alkyl group, or an aralkyl group, $-COX_1$ in which X_1 represents an unsubstituted or substituted alkoxy group, an unsubstituted or substituted aryloxy group, or $-NR_{16}R_{17}$ in which each of R_{16} and R_{17} independently, represents a hydrogen atom, an unsubstituted or substituted alkyl group, an aralkyl group, or an unsubstituted or substituted aryl group, $-COO(CH_2)_n-COX_2$, $-OCOX_3$, or $-NHCOX_4$ in which each of X_2 to X_4 independently, represents an unsubstituted or substituted alkyl group, an aralkyl group, an unsubstituted or substituted aryl group, an unsubstituted or substituted alkoxy group, or an unsubstituted or substituted aryloxy group, and n is an integer of 1 to 3, provided that at least one of R_7 to R_9 is $-CONR_{16}R_{17}$ having 17 or more carbon atoms,

R_{12} represents a linear or branched alkyl group having 4 or more carbon atoms,

R_{13} represents a linear or branched alkyl group having 8 or more carbon atoms;

and mixtures thereof.

2. (Previously Presented) The aqueous ink for ink-jet recording according to claim 1 wherein the yellow hue coloring matter is a quinophthalone compound represented by the formula (1);



wherein

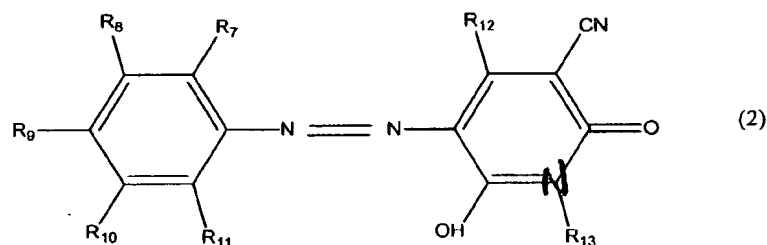
R_1 represents a hydrogen atom or an unsubstituted or substituted alkyl group having 5 or less carbon atoms, R_2 represents a hydrogen atom and R_3 represents -CONR₄R₅ in which each of R_4 and R_5 independently represents an unsubstituted or substituted alkyl group having 6 or more carbon atoms or an unsubstituted or substituted aryl group.

3. (Canceled)

4. (Canceled)

5. (Canceled)

6. (Previously Presented) The aqueous ink for ink-jet recording according to claim 1 wherein the yellow hue coloring matter is a pyridine azo compound represented by the formula (2);



wherein

each of R_7 to R_{11} independently, represents a hydrogen atom, a halogen atom, an unsubstituted or substituted alkyl group, an aralkyl group, an unsubstituted or substituted alkoxy group, an unsubstituted or substituted aryl group, an unsubstituted or substituted aryloxy group, a hydroxyl group, -NR₁₄R₁₅ in which each of R_{14} and R_{15} independently, represents a hydrogen atom, an unsubstituted or substituted alkyl group, or an aralkyl group, -COX₁ in which X₁ represents an unsubstituted or substituted alkoxy group, an unsubstituted or substituted aryloxy group, or -NR₁₆R₁₇ in which each of R_{16} and R_{17} independently, represents a hydrogen atom, an unsubstituted or substituted alkyl group, an aralkyl group, or an unsubstituted or substituted aryl group, -COO(CH₂)_n-COX₂, -

OCOX₃, or -NHCOX₄, in which X₂ to X₄ represents an unsubstituted or substituted alkyl group, an aralkyl group, an unsubstituted or substituted aryl group, an unsubstituted or substituted alkoxy group, or an unsubstituted or substituted aryloxy group, and n is an integer of 1 to 3, provided that at least one of R₇ to R₉ is -CONR₁₆R₁₇ having 17 or more carbon atoms,

R₁₂ represents a linear or branched alkyl group having 4 or more carbon atoms,

R₁₃ represents a linear or branched alkyl group having 8 or more carbon atoms.

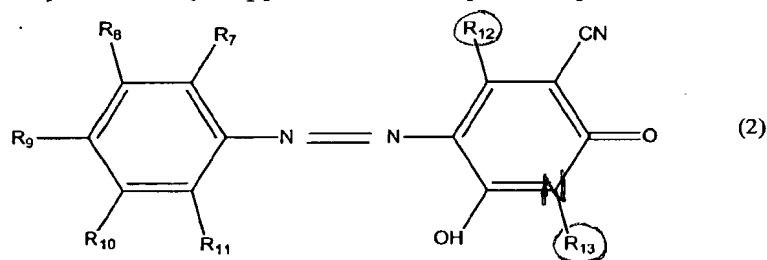
7. (Canceled)

8. (Canceled)

9. (Canceled)

10. (Canceled)

✓ 11. (Previously Presented) A pyridine azo compound represented by the formula (2);



wherein

each of R₇ to R₁₁ independently, represents a hydrogen atom, a halogen atom, an unsubstituted or substituted alkyl group, an aralkyl group, an unsubstituted or substituted alkoxy group, an unsubstituted or substituted aryl group, an unsubstituted or substituted aryloxy group, a hydroxyl group, -NR₁₄R₁₅ in which each of R₁₄ and R₁₅ independently, represents a hydrogen atom, an unsubstituted or substituted alkyl group, or an aralkyl group, -COX₁ in which X₁ represents an unsubstituted or substituted alkoxy group, an unsubstituted or substituted aryloxy group, or -NR₁₆R₁₇ in which R₁₆ and R₁₇

independently, represents a hydrogen atom, an unsubstituted or substituted alkyl group, an aralkyl group, or an unsubstituted or substituted aryl group, $-\text{COO}(\text{CH}_2)_n-\text{COX}_2$, $-\text{OCOX}_3$, or $-\text{NHCOX}_4$ in which X_2 to X_4 represents an unsubstituted or substituted alkyl group, an aralkyl group, an unsubstituted or substituted aryl group, an unsubstituted or substituted alkoxy group, or an unsubstituted or substituted aryloxy group, and n is an integer of 1 to 3, provided that at least one of R_7 to R_9 is $-\text{CONR}_{16}\text{R}_{17}$ having 17 or more carbon atoms,

R_{12} represents a linear or branched alkyl group having 4 or more carbon atoms,

R_{13} represents a linear or branched alkyl group having 8 or more carbon atoms.

12. (Canceled)

13. (Canceled)

14. (Canceled)

15. (Canceled)

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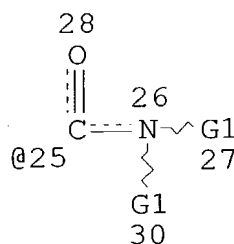
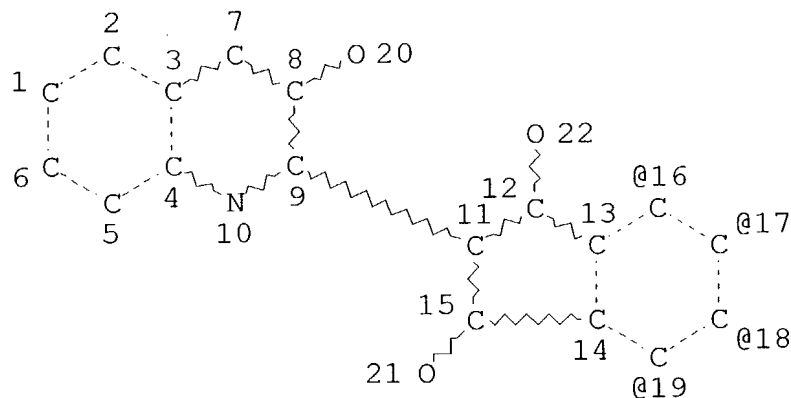
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DEFAULT ECLEVEL IS LIMITED
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NUMBER OF NODES IS 29

STEREO ATTRIBUTES: NONE

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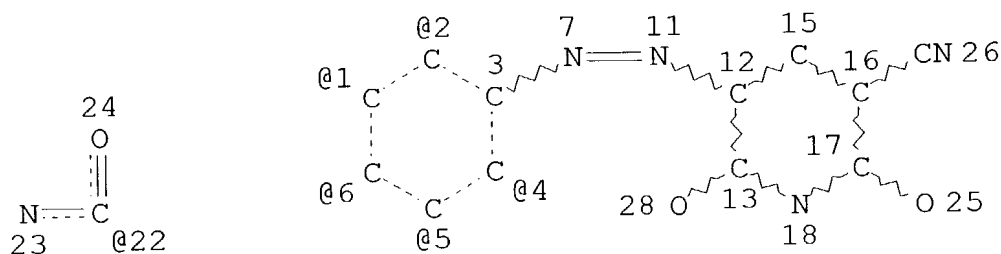
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31 ANSWERS

SEARCH TIME: 00.00.01

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L2 STR



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DEFAULT ECLEVEL IS LIMITED

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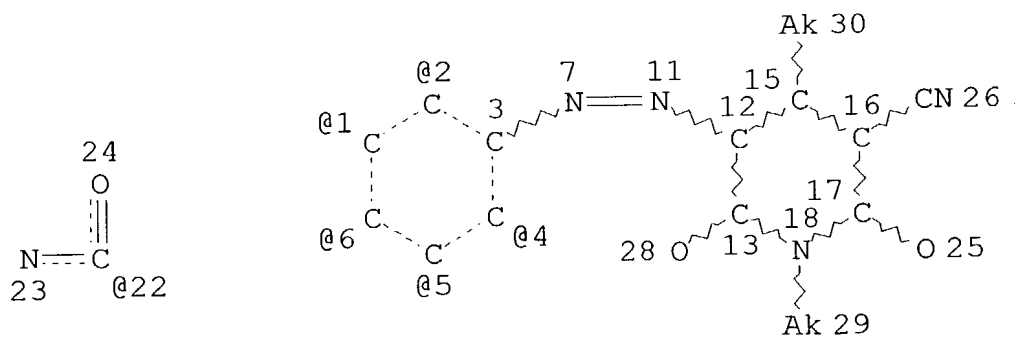
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L11 STR



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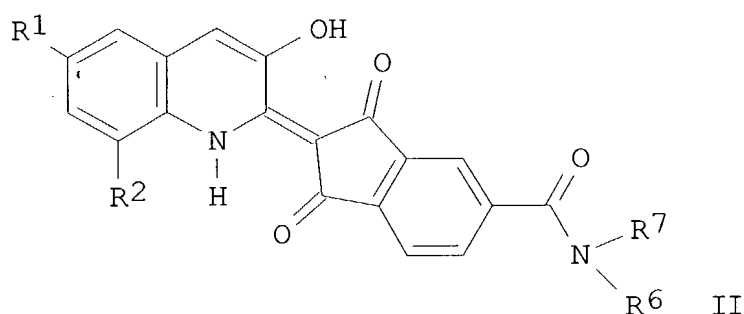
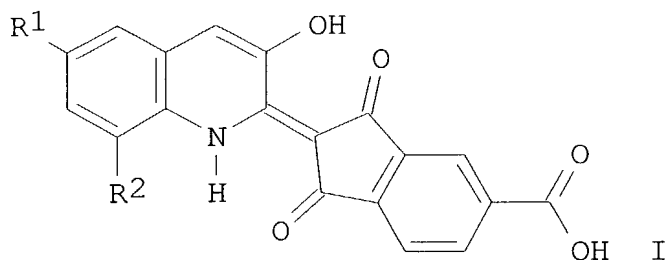
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=> d 16 1-13 cbib abs hitstr hitrn

L6 ANSWER 1 OF 13 ZCAPLUS COPYRIGHT 2004 ACS on STN
2004:139304 Production method of quinophthalone compounds. Kojima,
Katsuya; Ikuta, Hideki; Okuma, Tadashi; Matsuzaki, Yoshiaki (Mitsui
Chemicals Inc., Japan). Jpn. Kokai Tokkyo Koho JP 2004051873 A2
20040219, 15 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP
2002-213721 20020723.

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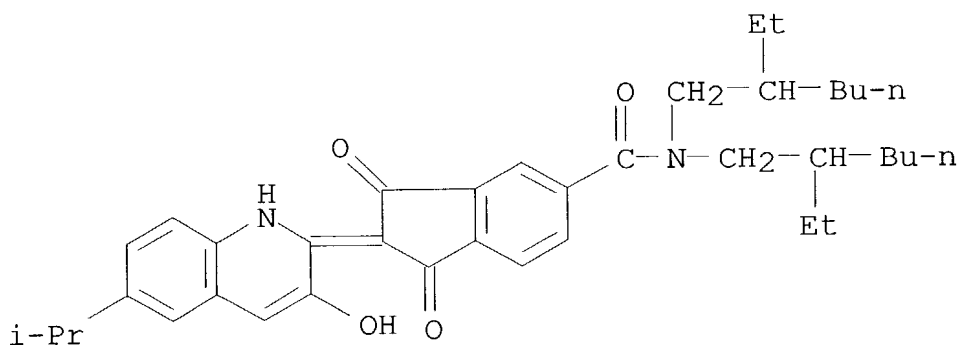
AB Title method comprises (i) halogenation agent treatment of quinophthalone compds. I in hydrocarbon solvents and (ii) primary or secondary amine treatment thereof to give amide-contg. quinophthalone compds. II, wherein R1, R2 = independently H, (substituted) alkyl, CONR3R4, or COOR5; R3, R4, R5 = independently H or (substituted) alkyl or aryl; and R6, R7 = independently H or (substituted) alkyl. Thus, 21.1 parts trimellitic anhydride and 24.6 parts 3-hydroxy-2-methyl-6-isopropylquinoline-4-carboxylic acid were reacted at 200° for 1 h to give 37.2 parts precursor, 50 parts of which was treated with 17.5 parts thionyl chloride, 32 parts di(2-ethylhexyl)amine was added therein and reacted to give an amide-contg. quinophthalone type dye with yield 93%, max. absorption at 452 nm, absorption coeff. 92,200 mL/g-cm.

IT **324743-50-2P**

(prepn. of quinophthalone compds.)

RN 324743-50-2 ZCAPLUS

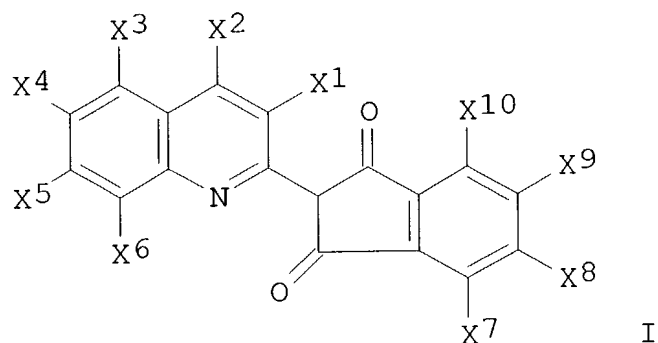
CN 1H-Indene-5-carboxamide, N,N-bis(2-ethylhexyl)-2,3-dihydro-2-[3-hydroxy-6-(1-methylethyl)-2(1H)-quinolinylidene]-1,3-dioxo- (9CI)
(CA INDEX NAME)



IT **324743-50-2P**
(prepn. of quinophthalone compds.)

L6 ANSWER 2 OF 13 ZCAPLUS COPYRIGHT 2004 ACS on STN
2003:479001 Document No. 139:54326 Quinophthalone dye-containing resin particles and aqueous emulsions, inks, and paints therefrom.
Hoshino, Toyomasa; Morita, Makoto; Nemoto, Akifumi; Murata, Yukichi; Ishida, Yoshinori (Mitsubishi Chemical Corp., Japan). Jpn. Kokai Tokkyo Koho JP 2003176308 A2 20030624, 17 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-376677 20011211.

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AB The resin particles are products prepd. by emulsion polymn. of ethylenic monomers in aq. media in the presence of surfactants, water-sol. polymn. initiators, and I [X1-X10 = H, NO2, OH, SH, CO2H, CN, SCN, halo, , (un)substituted alkyl(oxy), cycloalkyl(oxy), alkenyl(oxy), aryl(oxy), heterocyclic (oxy), amino, acyl(oxy), alkylsulfonyl(oxy), arylsulfonyl(oxy), alkoxy carbonyl(oxy), cycloalkyloxy carbonyl, alkenyloxy carbonyl, aryloxy carbonyl(oxy),

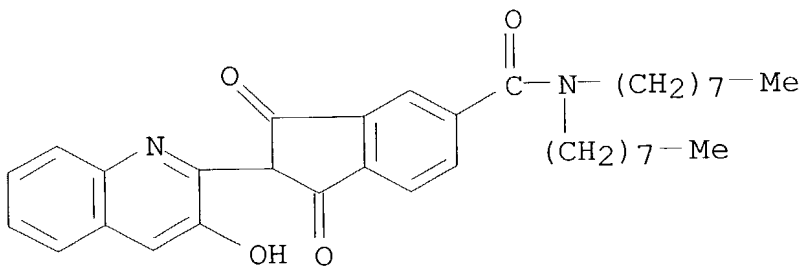
heterocyclic oxycarbonyl, carbamoyl, sulfamoyl, alkylthio, cycloalkylthio, arylthio, heterocyclic thio, alkoxy sulfonyl, cycloalkyloxysulfonyl, alkenyloxysulfonyl, aryloxysulfonyl, heterocyclic oxysulfonyl; X7 and X8, X8 and X9, and X9 and X10 may form ring] and satisfy I content $\geq 0.1\%$. The particles may satisfy DV 5-20 nm and $1 \leq DV/DN \leq 1.5$ (DV, DN = vol.- and no.-av. diam., resp.). Thus, styrene, Bu acrylate, acrylic acid were subjected to emulsion polymn. in the presence of I [X1 = OH; X2-X8, X10 = H; X9 = CON(n-C8H17)2] to give a polymer particle dispersion with DV/DN 1.3. A jet ink from the dispersion was printed on paper, showing good color and high water and wear resistance.

IT **333382-61-9**

(quinophthalone dye-contg. resin particles with narrow mol. wt. distribution for aq. emulsion inks and paints)

RN 333382-61-9 ZCAPLUS

CN 1H-Indene-5-carboxamide, 2,3-dihydro-2-(3-hydroxy-2-quinolinyl)-N,N-dioctyl-1,3-dioxo- (9CI) (CA INDEX NAME)



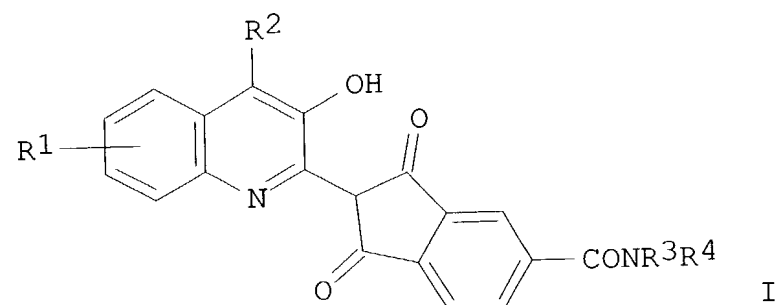
IT **333382-61-9**

(quinophthalone dye-contg. resin particles with narrow mol. wt. distribution for aq. emulsion inks and paints)

L6 ANSWER 3 OF 13 ZCAPLUS COPYRIGHT 2004 ACS on STN

2002:381167 Document No. 136:387539 Quinophthalone dyes, thermal transfer sheets and inks containing them. Ishida, Mio; Murata, Yukichi (Mitsubishi Chemical Corp., Japan). Jpn. Kokai Tokkyo Koho JP 2002144748 A2 20020522, 9 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-347836 20001115.

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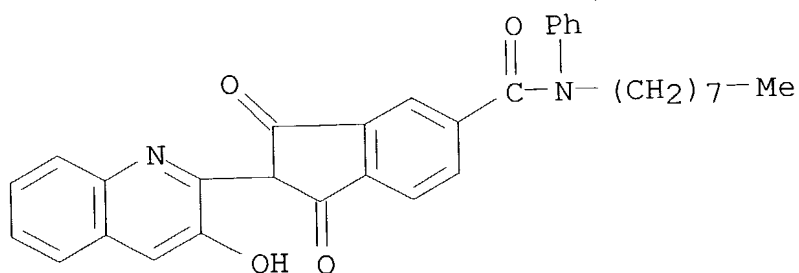
AB The quinophthalone dyes are represented by the formula I [R1 = H, (un)substituted alkyl; R2 = H, halo; R3 = (un)substituted (unsatd.) alkyl, alkyl; R4 = (un)substituted aryl]. Thus, a PET film was coated with a yellow ink contg. I (R1, R2 = H; R3 = octyl; R4 = Ph, λ_{max} 442 nm), BX 1 (polyvinyl butyral), and solvents, dried, coated with a compn. contg. BR 80 (acrylic polymer) and KF 393 (amino-modified silicone oil) on the other side, and dried to give a thermal-transfer sheet giving clear images with good light resistance.

IT **427892-34-0P**

(quinophthalone dyes for thermal transfer sheets and inks)

RN 427892-34-0 ZCAPLUS

CN 1H-Indene-5-carboxamide, 2,3-dihydro-2-(3-hydroxy-2-quinolinyl)-N-octyl-1,3-dioxo-N-phenyl- (9CI) (CA INDEX NAME)

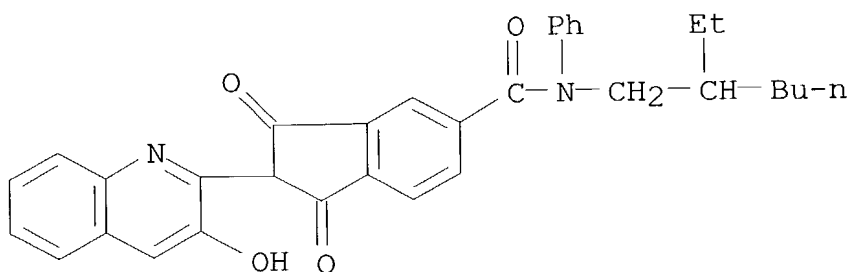


IT **427892-35-1 427892-37-3 427892-40-8**
427892-42-0

(quinophthalone dyes for thermal transfer sheets and inks)

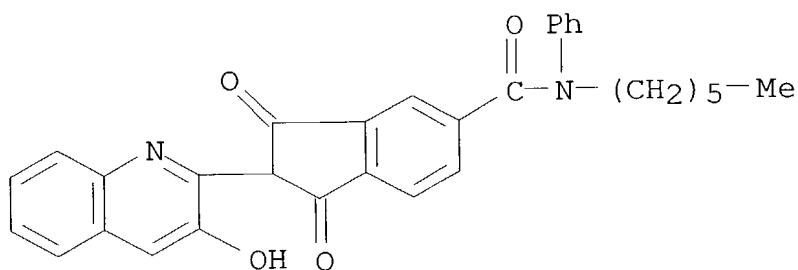
RN 427892-35-1 ZCAPLUS

CN 1H-Indene-5-carboxamide, N-(2-ethylhexyl)-2,3-dihydro-2-(3-hydroxy-2-quinolinyl)-1,3-dioxo-N-phenyl- (9CI) (CA INDEX NAME)



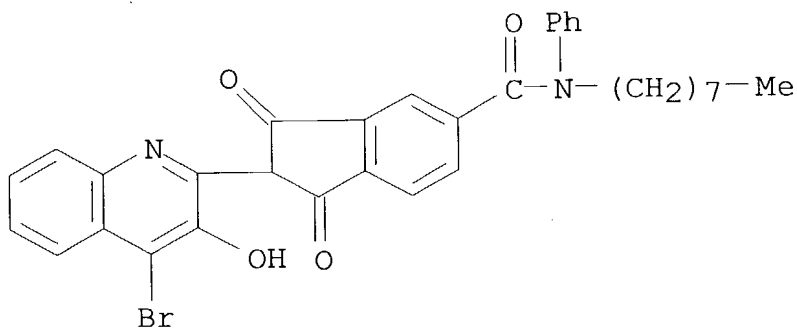
RN 427892-37-3 ZCAPLUS

CN 1H-Indene-5-carboxamide, N-hexyl-2,3-dihydro-2-(3-hydroxy-2-quinolinyl)-1,3-dioxo-N-phenyl- (9CI) (CA INDEX NAME)



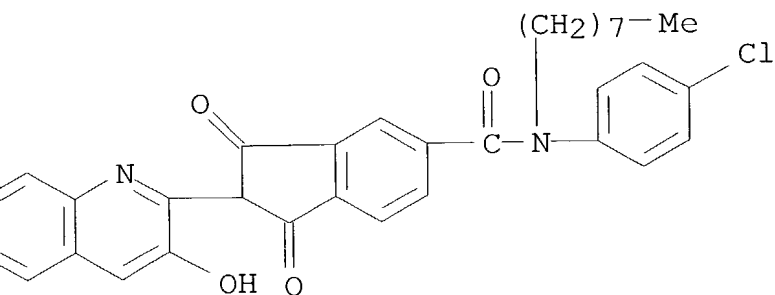
RN 427892-40-8 ZCAPLUS

CN 1H-Indene-5-carboxamide, 2-(4-bromo-3-hydroxy-2-quinolinyl)-2,3-dihydro-N-octyl-1,3-dioxo-N-phenyl- (9CI) (CA INDEX NAME)



RN 427892-42-0 ZCAPLUS

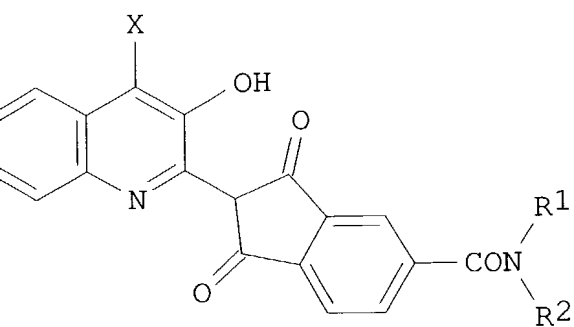
CN 1H-Indene-5-carboxamide, N-(4-chlorophenyl)-2,3-dihydro-2-(3-hydroxy-2-quinolinyl)-N-octyl-1,3-dioxo- (9CI) (CA INDEX NAME)



T 427892-34-0P
 (quinophthalone dyes for thermal transfer sheets and inks)
 T 427892-35-1 427892-37-3 427892-40-8
 427892-42-0
 (quinophthalone dyes for thermal transfer sheets and inks)

6 ANSWER 4 OF 13 ZCAPLUS COPYRIGHT 2004 ACS on STN
 001:251767 Document No. 134:287931 Quinophthalone-type coloring
 matters and sublimable thermal-transfer printing sheets with yellow
 color material layers containing the same. Uchiyama, Isao;
 Murakami, Naomi (Mitsubishi Chemical Corp., Japan). Jpn. Kokai
 Tokkyo Koho JP 2001096928 A2 20010410, 6 pp. (Japanese). CODEN:
 JKXXAF. APPLICATION: JP 1999-276090 19990929.

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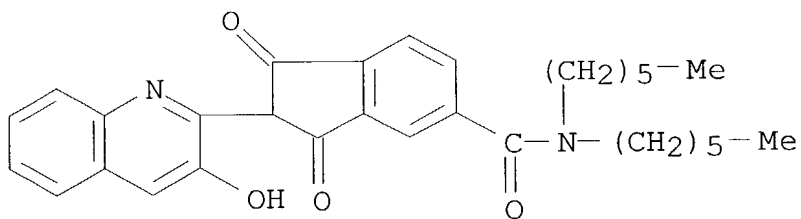
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AB The printing sheets have ≥ 1 color material layers contg.
 quinophthalone-type coloring matters shown as I (X = H, halogen; R1,
 R2 = C ≥ 6 alkyl). I have good soly. in org. solvents and high
 sensitivity.

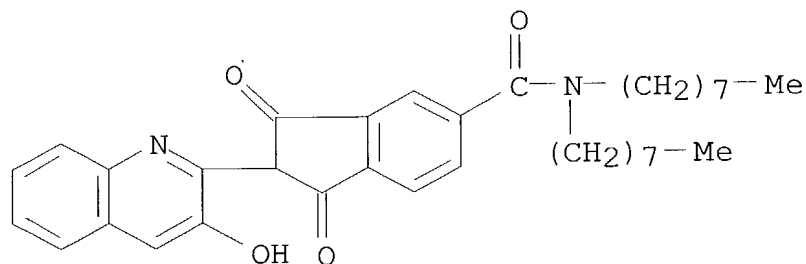
IT 78333-78-5 333382-61-9

(quinophthalone-type yellow colorants for sublimable
thermal-transfer printing sheets)

RN 78333-78-5 ZCAPLUS

CN 1H-Indene-5-carboxamide, N,N-dihexyl-2,3-dihydro-2-(3-hydroxy-2-
quinolinyl)-1,3-dioxo- (9CI) (CA INDEX NAME)

RN 333382-61-9 ZCAPLUS

CN 1H-Indene-5-carboxamide, 2,3-dihydro-2-(3-hydroxy-2-quinolinyl)-N,N-
dioctyl-1,3-dioxo- (9CI) (CA INDEX NAME)

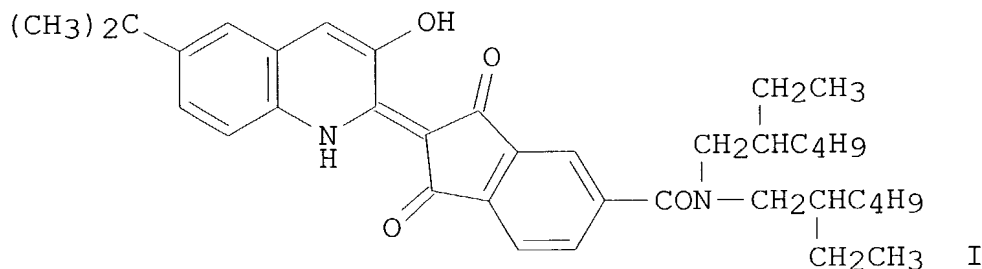
IT 78333-78-5 333382-61-9

(quinophthalone-type yellow colorants for sublimable
thermal-transfer printing sheets)

L6 ANSWER 5 OF 13 ZCAPLUS COPYRIGHT 2004 ACS on STN

2001:101249 Document No. 134:164627 Yellow compounds and water-based
ink-jet recording inks containing the compounds. Matsuzaki,
Yoriaki; Okuma, Tadashi; Oi, Ryu; Kohgo, Osamu (Mitsui Chemicals,
Inc., Japan). PCT Int. Appl. WO 2001009256 A1 20010208, 84 pp.
DESIGNATED STATES: W: CN, KR, US; RW: DE, FR, GB. (Japanese).
CODEN: PIXXD2. APPLICATION: WO 2000-JP4973 20000726. PRIORITY: JP
1999-215070 19990729; JP 1999-223982 19990806; JP 1999-235288
19990823; JP 1999-255772 19990909.

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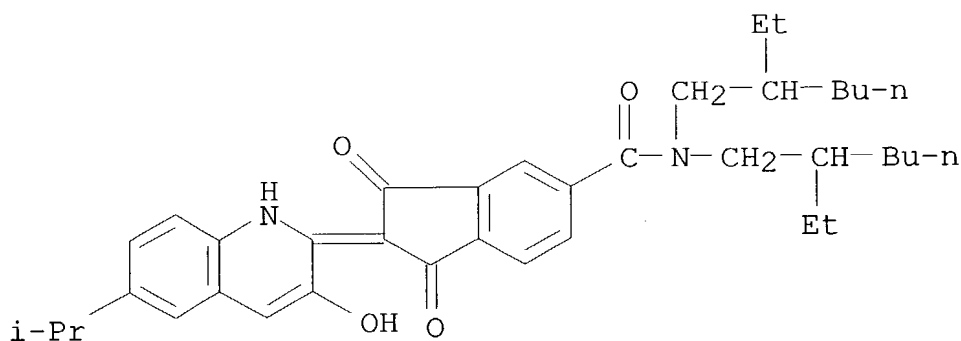
AB Quinophthalone compds. and/or pyridone azo compds. are used as dyes for inks having light resistance and storage stability. Thus, di-Me 5-sodiosulfoisophthalate-dimethyl terephthalate-ethylene glycol-tricyclodecanedimethanol copolymer granules were dyed with I and mixed with glycerin and water to prep. an ink.

IT **324743-50-2P**

(yellow pigments of quinophthalone compds. and pyridone azo compds. for water-based ink-jet recording inks)

RN 324743-50-2 ZCAPLUS

CN 1H-Indene-5-carboxamide, N,N-bis(2-ethylhexyl)-2,3-dihydro-2-[3-hydroxy-6-(1-methylethyl)-2(1H)-quinolinylidene]-1,3-dioxo- (9CI)
(CA INDEX NAME)

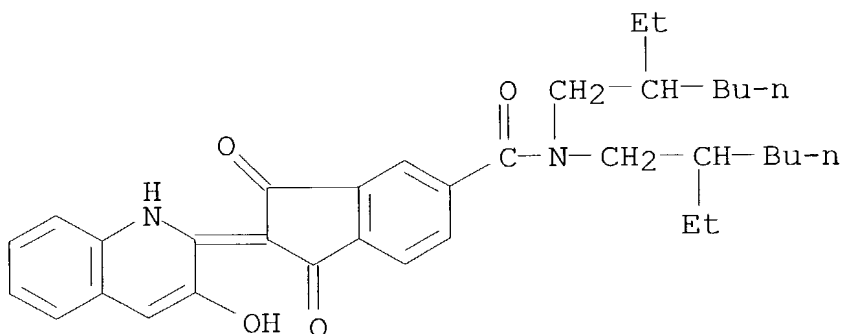


IT **303022-08-4 324743-51-3 324743-55-7**
324743-63-7 324743-65-9 324743-71-7
324743-72-8 324743-73-9 324743-74-0
324743-75-1 324743-76-2 324743-77-3

(yellow pigments of quinophthalone compds. and pyridone azo compds. for water-based ink-jet recording inks)

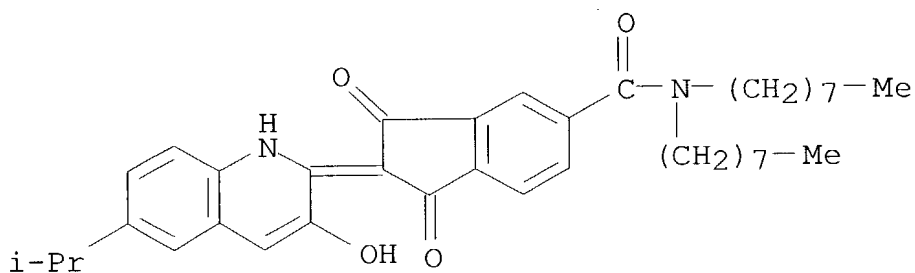
RN 303022-08-4 ZCAPLUS

CN 1H-Indene-5-carboxamide, N,N-bis(2-ethylhexyl)-2,3-dihydro-2-(3-hydroxy-2(1H)-quinolinylidene)-1,3-dioxo- (9CI) (CA INDEX NAME)



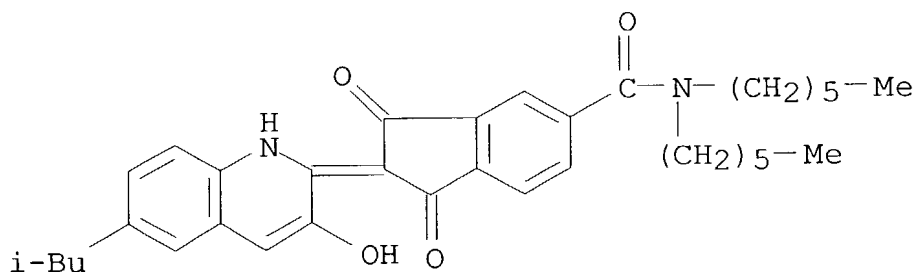
RN 324743-51-3 ZCAPLUS

CN 1H-Indene-5-carboxamide, 2,3-dihydro-2-[3-hydroxy-6-(1-methylethyl)-2(1H)-quinolinylidene]-N,N-diethyl-1,3-dioxo- (9CI) (CA INDEX NAME)



RN 324743-55-7 ZCAPLUS

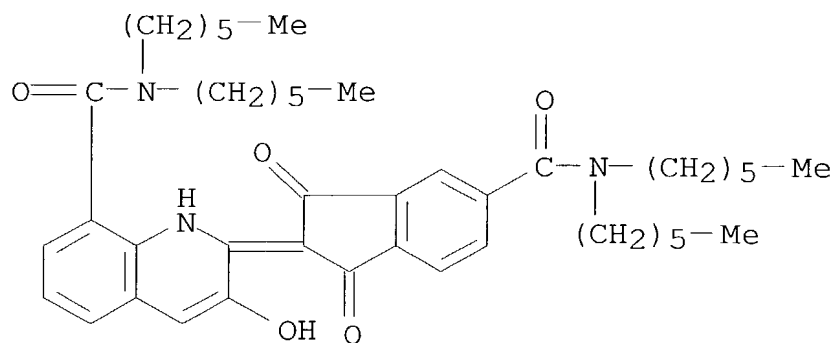
CN 1H-Indene-5-carboxamide, N,N-dihexyl-2,3-dihydro-2-[3-hydroxy-6-(2-methylpropyl)-2(1H)-quinolinylidene]-1,3-dioxo- (9CI) (CA INDEX NAME)



RN 324743-63-7 ZCAPLUS

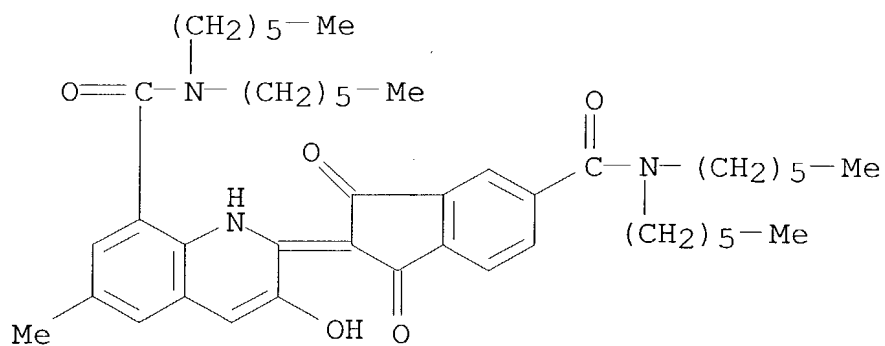
CN 8-Quinolinecarboxamide, 2-[5-[(dihexylamino)carbonyl]-1,3-dihydro-1,3-dioxo-2H-inden-2-ylidene]-N,N-dihexyl-1,2-dihydro-3-hydroxy-

(9CI) (CA INDEX NAME)



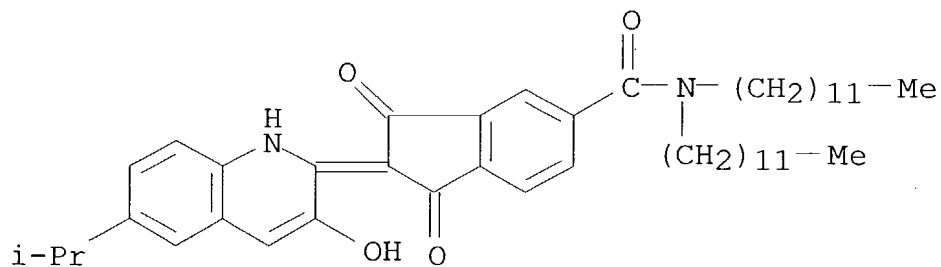
RN 324743-65-9 ZCAPLUS

CN 8-Quinolinecarboxamide, 2-[5-[(dihexylamino)carbonyl]-1,3-dihydro-1,3-dioxo-2H-inden-2-ylidene]-N,N-dihexyl-1,2-dihydro-3-hydroxy-6-methyl- (9CI) (CA INDEX NAME)



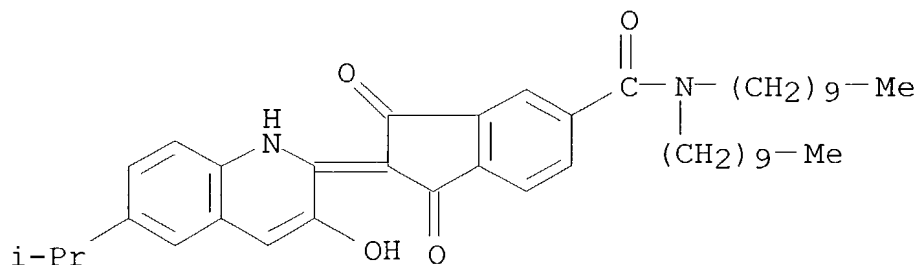
RN 324743-71-7 ZCAPLUS

CN 1H-Indene-5-carboxamide, N,N-didodecyl-2,3-dihydro-2-[3-hydroxy-6-(1-methylethyl)-2(1H)-quinolinylylidene]-1,3-dioxo- (9CI) (CA INDEX NAME)



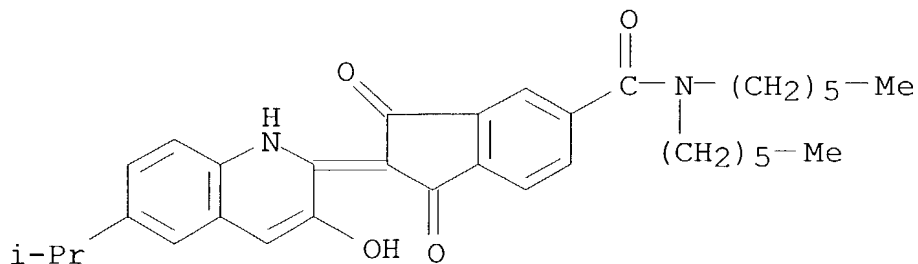
RN 324743-72-8 ZCAPLUS

CN 1H-Indene-5-carboxamide, N,N-didecyl-2,3-dihydro-2-[3-hydroxy-6-(1-methylethyl)-2(1H)-quinolinylidene]-1,3-dioxo- (9CI) (CA INDEX NAME)



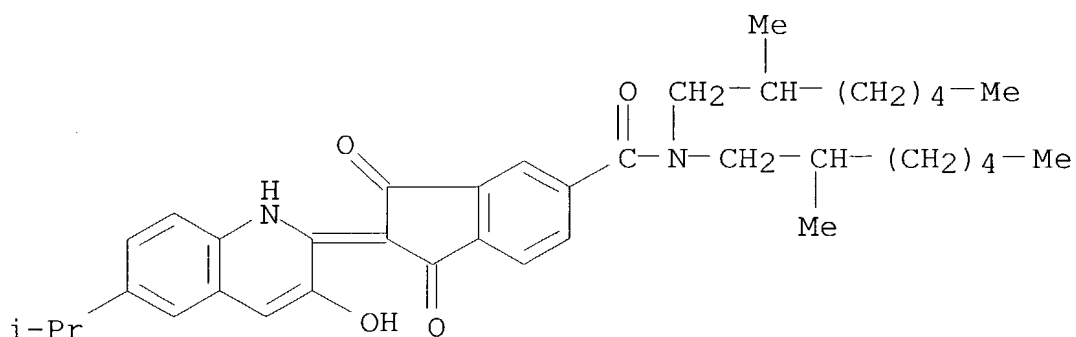
RN 324743-73-9 ZCAPLUS

CN 1H-Indene-5-carboxamide, N,N-dihexyl-2,3-dihydro-2-[3-hydroxy-6-(1-methylethyl)-2(1H)-quinolinylidene]-1,3-dioxo- (9CI) (CA INDEX NAME)



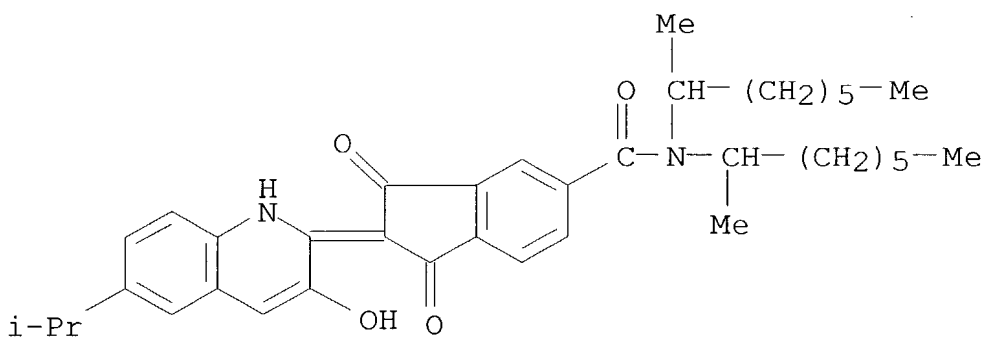
RN 324743-74-0 ZCAPLUS

CN 1H-Indene-5-carboxamide, 2,3-dihydro-2-[3-hydroxy-6-(1-methylethyl)-2(1H)-quinolinylidene]-N,N-bis(2-methylheptyl)-1,3-dioxo- (9CI) (CA INDEX NAME)



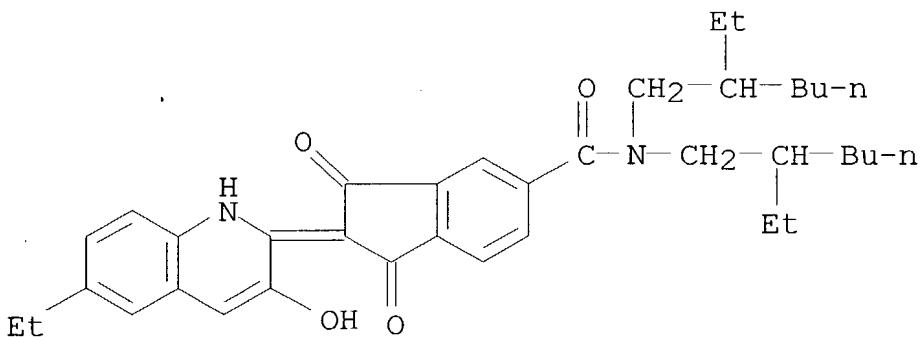
RN 324743-75-1 ZCAPLUS

CN 1H-Indene-5-carboxamide, 2,3-dihydro-2-[3-hydroxy-6-(1-methylethyl)-2(1H)-quinolinyldiene]-N,N-bis(1-methylheptyl)-1,3-dioxo- (9CI) (CA INDEX NAME)



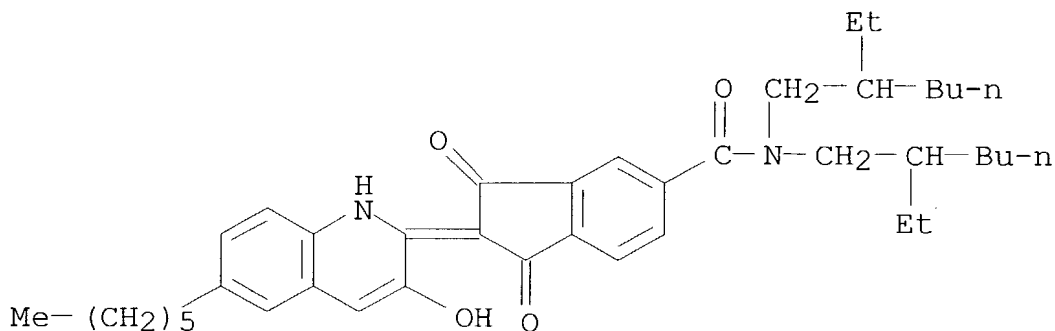
RN 324743-76-2 ZCAPLUS

CN 1H-Indene-5-carboxamide, N,N-bis(2-ethylhexyl)-2-(6-ethyl-3-hydroxy-2(1H)-quinolinyldiene)-2,3-dihydro-1,3-dioxo- (9CI) (CA INDEX NAME)



RN 324743-77-3 ZCAPLUS

CN 1H-Indene-5-carboxamide, N,N-bis(2-ethylhexyl)-2-(6-hexyl-3-hydroxy-2(1H)-quinolinylidene)-2,3-dihydro-1,3-dioxo- (9CI) (CA INDEX NAME)



IT 324743-50-2P

(yellow pigments of quinophthalone compds. and pyridone azo compds. for water-based ink-jet recording inks)

IT 303022-08-4 324743-51-3 324743-55-7

324743-63-7 324743-65-9 324743-71-7

324743-72-8 324743-73-9 324743-74-0

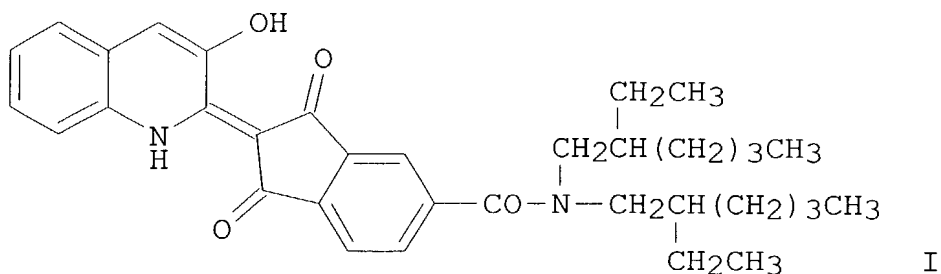
324743-75-1 324743-76-2 324743-77-3

(yellow pigments of quinophthalone compds. and pyridone azo compds. for water-based ink-jet recording inks)

L6 ANSWER 6 OF 13 ZCAPLUS COPYRIGHT 2004 ACS on STN

2000:750345 Document No. 133:323119 Water-thinned inks for ink jet printing with good water and light resistance and storage stability. Ohi, Toru; Matsuzaki, Yoriaki; Ohkuma, Tadashi; Kogo, Osamu (Mitsui Chemical Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2000297234 A2 20001024, 13 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-105389 19990413.

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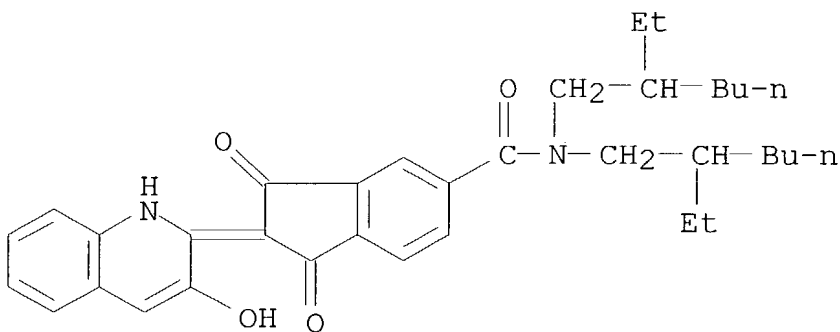
AB The inks contain polymer dispersions and oil-sol. dyes with $\leq 1\%$ water soly. and $\geq 10\%$ PhMe soly. Thus, a 15% water-thinned yellow ink contg. di-Me 5-sodiosulfoisophthalate-di-Me terephthalate-ethylene glycol-tricyclodecanedimethanol copolymer dispersion (av. diam. $0.1 \mu\text{m}$) colored with oil-sol. yellow dye I (PhMe soly. 35%) showed no clogging after staying at 40° for 2 mo. and gave a printed image with water and light resistance and no feathering.

IT 303022-08-4

(oil-sol. dye; water-thinned jet-printing inks with good water and light resistance and storage stability)

RN 303022-08-4 ZCAPLUS

CN 1H-Indene-5-carboxamide, N,N-bis(2-ethylhexyl)-2,3-dihydro-2-(3-hydroxy-2(1H)-quinolinylidene)-1,3-dioxo- (9CI) (CA INDEX NAME)

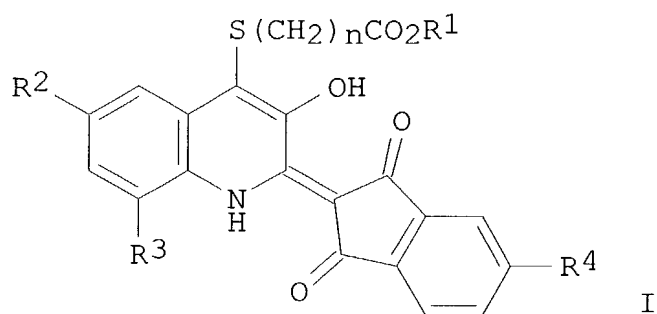


IT 303022-08-4

(oil-sol. dye; water-thinned jet-printing inks with good water and light resistance and storage stability)

L6 ANSWER 7 OF 13 ZCAPLUS COPYRIGHT 2004 ACS on STN
2000:585429 Document No. 133:185565 Preparation of quinophthalone derivatives as recording dyes. Okuma, Tadashi; Oi, Tatsu (Mitsui Chemical Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2000229945 A2 20000822, 8 pp. (Japanese). CODEN: JKXXAF.
APPLICATION: JP 1999-35744 19990215.

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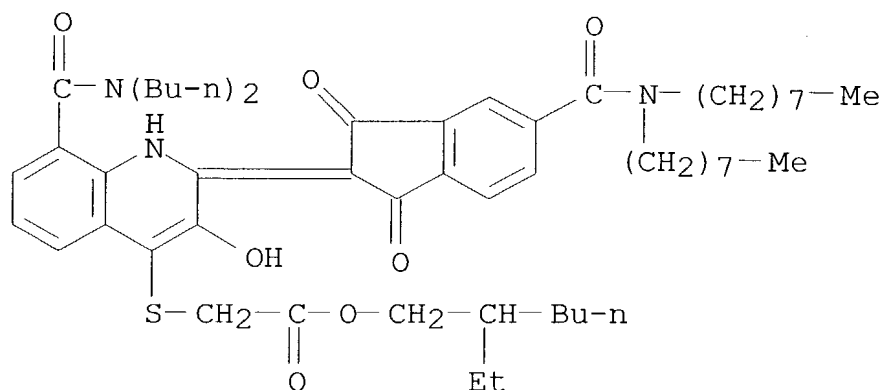
AB The title compds. [I; R1 = (un)substituted alkyl; R2, R3, R4 = H, (un)substituted alkyl, alkyloxycarbonyl, or mono- or dialkylaminocarbonyl; n is a pos. integer], which possess high soly. against org. solvent and are useful as yellow dyes for sublimation-transfer or ink-jet recording to provide sharp images with high stability and without unevenness, are prepd. Thus, a mixt. of 4-bromo-2-(1,3-dioxo-2-indanylidene)-3-hydroxy-1,2-dihydroquinoline (Yellow 3GSL) and 1,3-dimethyl-2-imidazolidinone was heated to 50°, followed by adding thioglycolic acid 2-ethylhexyl ester and KHCO₃, and the resulting mixt. was heated at 70° for 4 h to give 79% I (R1 = 2-ethylhexyl, n = 1, R2 = R3 = R4 = H) (II), which showed max. absorption wavelength 458 nm and soly. in toluene of 25 wt.%. An ink contg. II 5, polybutyral resin 7.5, Me Et ketone 43.7, and PhMe 43.75 part was coated on a polyethylene terephthalate film at 1.0 g/m² to give a sublimation-transfer sheet which gave an even, clear, and yellow image by thermal head printing. The image did not discolor after exposing it to carbon ark at 60° for 10 h.

IT **288405-07-2P**

(prepn. of quinophthalone derivs. as yellow dyes for sublimation-transfer or ink-jet recording)

RN 288405-07-2 ZCAPLUS

CN Acetic acid, [[8-[(dibutylamino)carbonyl]-2-[5-[(dioctylamino)carbonyl]-1,3-dihydro-1,3-dioxo-2H-inden-2-ylidene]-1,2-dihydro-3-hydroxy-4-quinolinyl]thio]-, 2-ethylhexyl ester (9CI) (CA INDEX NAME)



IT 288405-07-2P

(prepn. of quinophthalone derivs. as yellow dyes for
sublimation-transfer or ink-jet recording)

L6 ANSWER 8 OF 13 ZCAPLUS COPYRIGHT 2004 ACS on STN

1996:725317 Document No. 126:48352 Dyes for color filters, and
photosensitive resin compositions containing them. Itoh, Hisato;
Karasawa, Akio; Sugimoto, Kenichi (Mitsui Toatsu Chemicals, Inc.,
Japan). U.S. US 5578419 A 19961126, 35 pp., Cont.-in-part of U.S.
Ser. No. 987,960, abandoned. (English). CODEN: USXXAM.
APPLICATION: US 1994-223605 19940406. PRIORITY: JP 1991-328474
19911212; US 1992-987960 19921211.

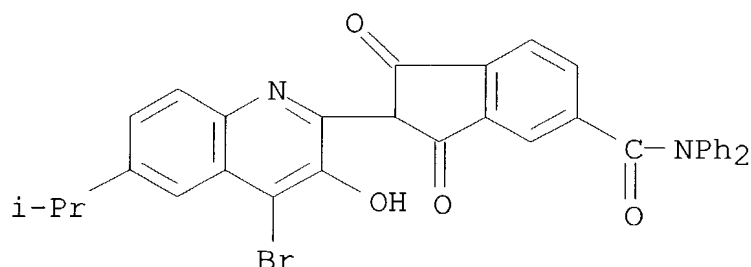
AB Dyes suitable for use in the fabrication of color filters are
represented by D(A_Yn₁)n₂, where D represents a chromophoric
(di)phenoxy- or (phenylthio)anthraquinone nucleus, A denotes a
connecting group, Y is a photopolymerizable group having one of
several specified structures, n₁ is 1-10,000, and n₂ is 1-10. Thus,
1-amino-4-hydroxy-2-(p-tolyloxy)anthraquinone was condensed with
N-(chloromethyl)-2-phenylmaleimide in C₂H₄Cl₂ in the presence of
ZnCl₂ to give a dye with λ_{max} 512 nm.

IT 151321-71-0P

(dyes for color filters and photosensitive resin compns. contg.
them)

RN 151321-71-0 ZCAPLUS

CN 1H-Indene-5-carboxamide, 2-[4-bromo-3-hydroxy-6-(1-methylethyl)-2-
quinolinyl]-2,3-dihydro-1,3-dioxo-N,N-diphenyl- (9CI) (CA INDEX
NAME)

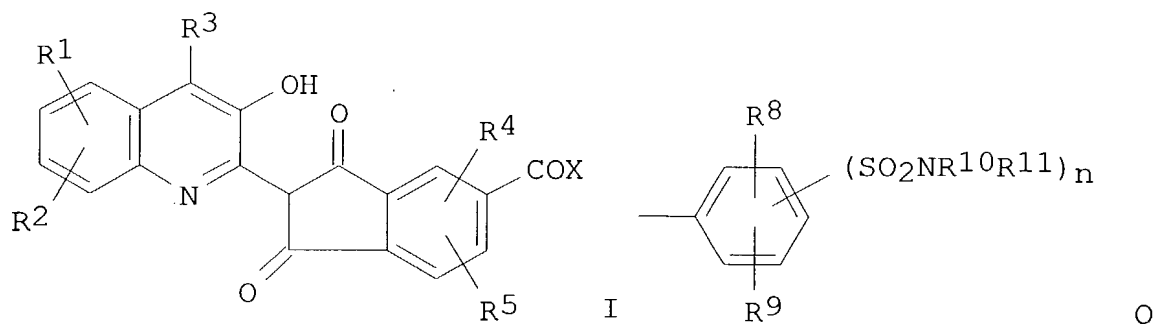


IT 151321-71-0P

(dyes for color filters and photosensitive resin compns. contg. them)

L6 ANSWER 9 OF 13 ZCAPLUS COPYRIGHT 2004 ACS on STN
 1995:193455 Document No. 122:12127 Yellow colorants and color filters containing them. Karasawa, Akio; Ito, Naoto (Mitsui Toatsu Chemicals, Japan). Jpn. Kokai Tokkyo Koho JP 06220339 A2 19940809 Heisei, 9 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1993-8117 19930121.

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AB The yellow colorants are quinophthalones I [R1-R5 = H, halo, (un)substituted C1-20 alkyl, (un)substituted cycloalkyl; X = NR6R7; R6 = Q; R7 = H, Q; R8, R9 = H, halo, (un)substituted C1-20 alkyl, (un)substituted cycloalkyl; R10, R11 = H, (un)substituted C1-20 alkyl, (un)substituted cycloalkyl, (un)substituted aryl; n = 1-3] and their tautomers; the color filters contain the colorants; color filters for liq.-cryst. displays comprise cured photoresist compns. contg. the colorants. Thus, I (R1 = 6-iso-Pr, R2-R5 = H, X = OH) was treated with SOCl2, then with p-Bu2NSO2C6H4NH2 in water to give

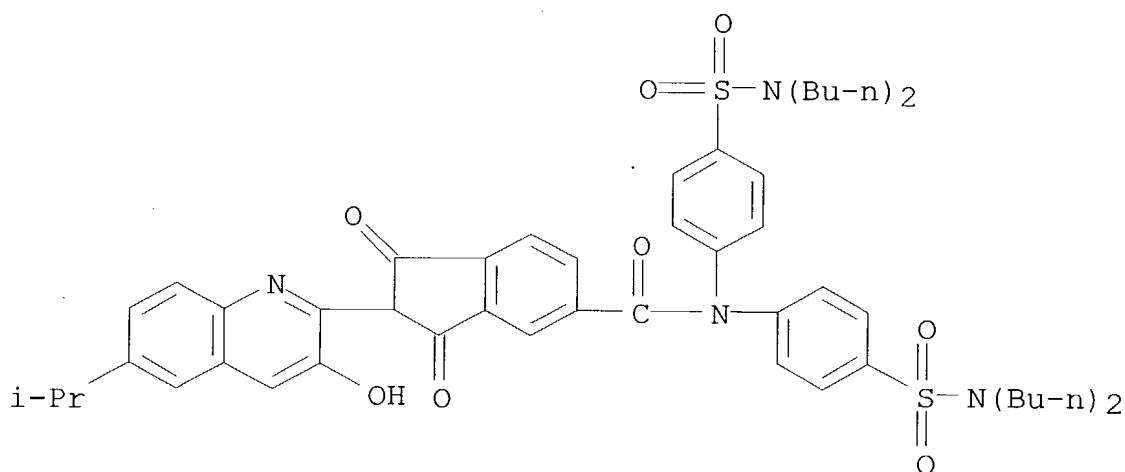
a colorant, λ_{\max} 452 nm.

IT **159392-95-7P**

(yellow colorant for color filters and photoresists and liq.-cryst. display devices)

RN 159392-95-7 ZCAPLUS

CN 1H-Indene-5-carboxamide, N,N-bis[4-[(dibutylamino)sulfonyl]phenyl]-2,3-dihydro-2-[3-hydroxy-6-(1-methylethyl)-2-quinolinyl]-1,3-dioxo- (9CI) (CA INDEX NAME)



IT **159392-98-0P 159393-00-7P 159393-02-9P**

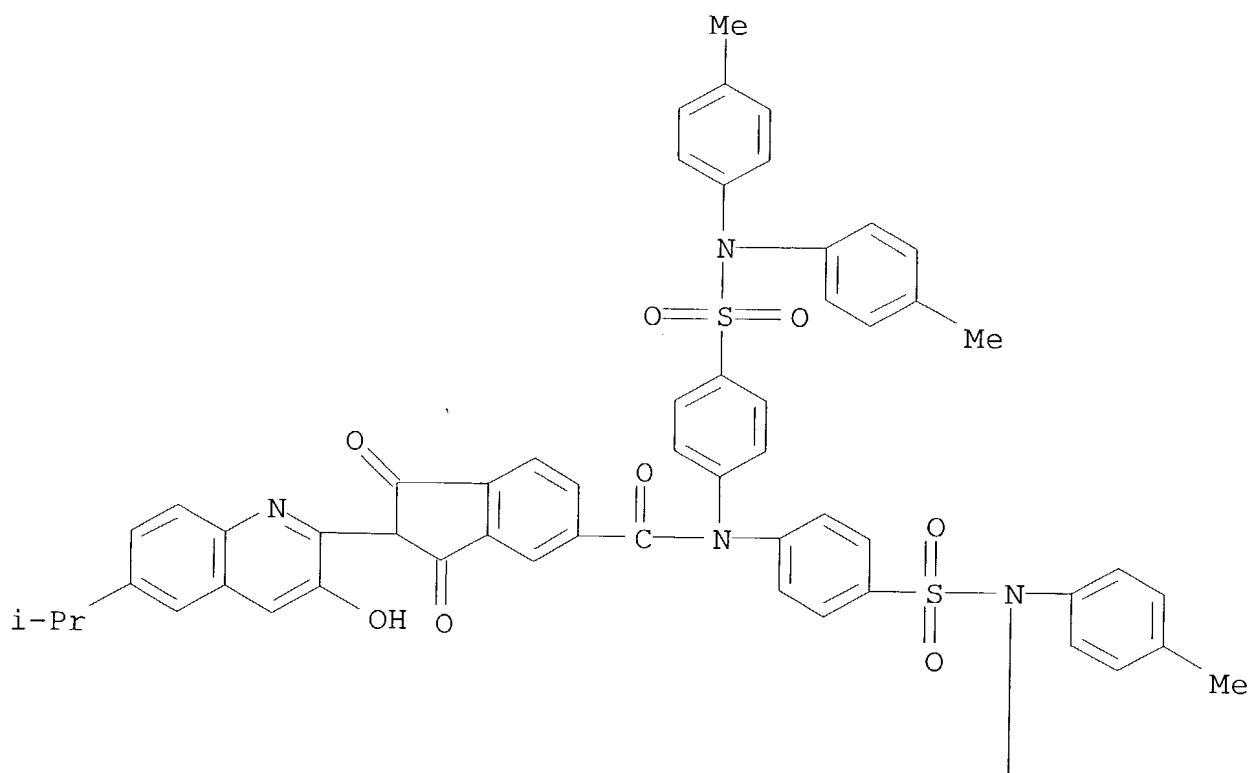
159393-04-1P 159393-08-5P

(yellow colorant for color filters and photoresists and liq.-cryst. display devices)

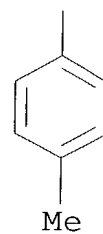
RN 159392-98-0 ZCAPLUS

CN 1H-Indene-5-carboxamide, N,N-bis[4-[[bis(4-methylphenyl)amino]sulfonyl]phenyl]-2,3-dihydro-2-[3-hydroxy-6-(1-methylethyl)-2-quinolinyl]-1,3-dioxo- (9CI) (CA INDEX NAME)

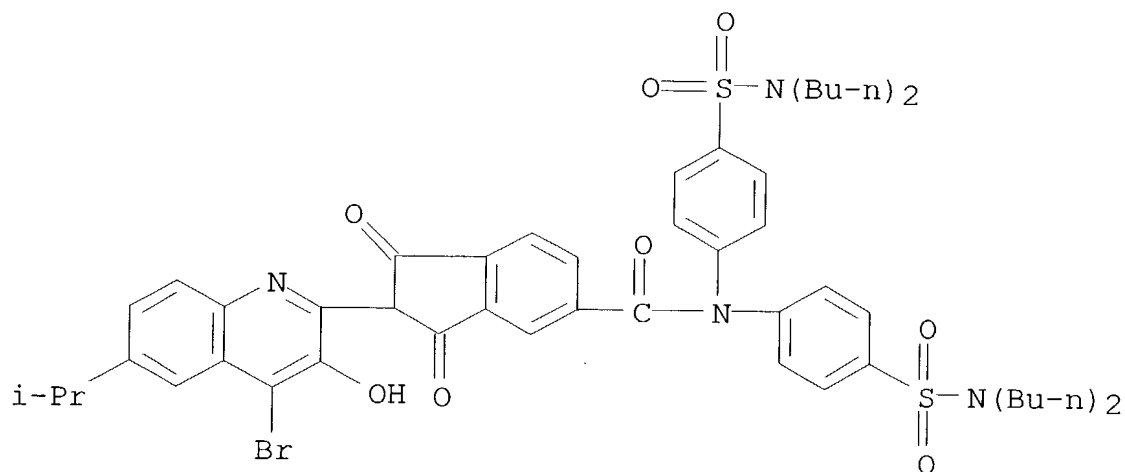
PAGE 1-A



PAGE 2-A

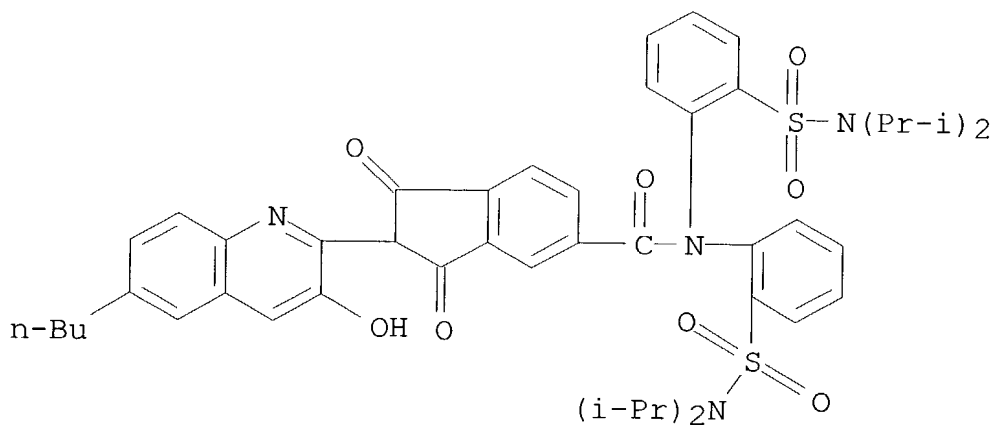


RN	159393-00-7	ZCAPLUS
CN	1H-Indene-5-carboxamide, 2-[4-bromo-3-hydroxy-6-(1-methylethyl)-2-quinolinyl]-N,N-bis[4-[(dibutylamino)sulfonyl]phenyl]-2,3-dihydro-1,3-dioxo- (9CI) (CA INDEX NAME)	



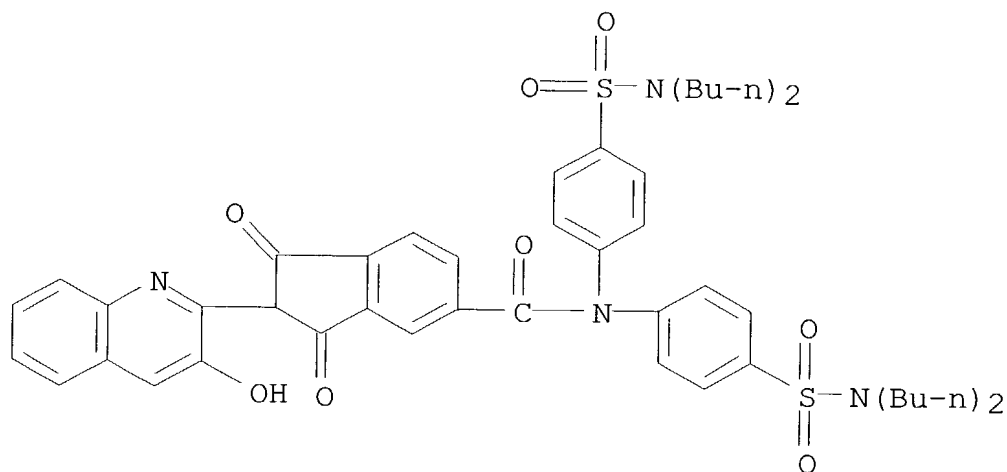
RN 159393-02-9 ZCAPLUS

CN 1H-Indene-5-carboxamide, N,N-bis[2-[[bis(1-methylethyl)amino]sulfonyl]phenyl]-2-(6-butyl-3-hydroxy-2-quinolinyl)-2,3-dihydro-1,3-dioxo- (9CI) (CA INDEX NAME)

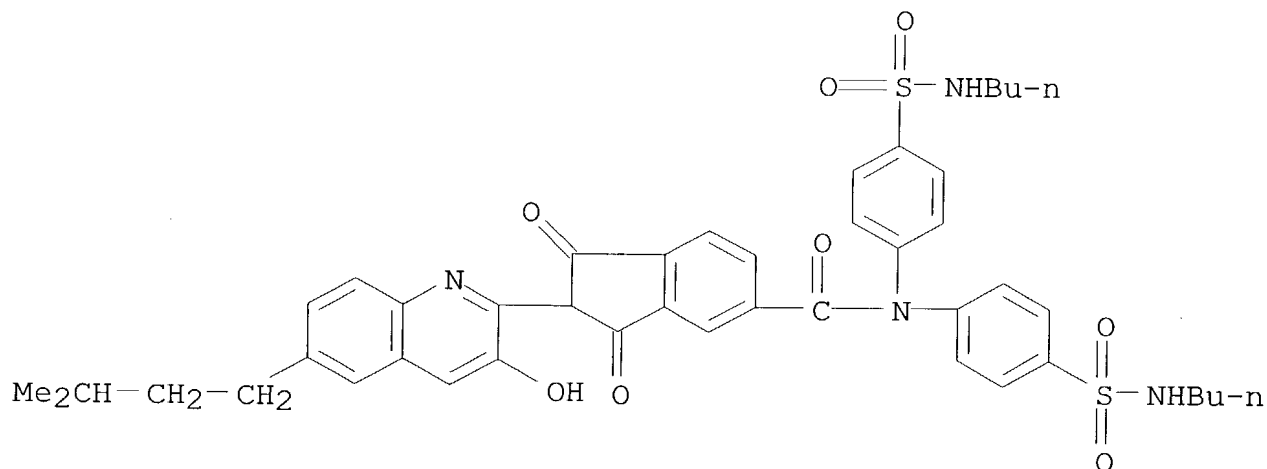


RN 159393-04-1 ZCAPLUS

CN 1H-Indene-5-carboxamide, N,N-bis[4-[(dibutylamino)sulfonyl]phenyl]-2,3-dihydro-2-(3-hydroxy-2-quinolinyl)-1,3-dioxo- (9CI) (CA INDEX NAME)



RN 159393-08-5 ZCAPLUS
 CN 1H-Indene-5-carboxamide, N,N-bis[4-[(butylamino)sulfonyl]phenyl]-2,3-dihydro-2-[3-hydroxy-6-(3-methylbutyl)-2-quinolinyl]-1,3-dioxo-(9CI) (CA INDEX NAME)

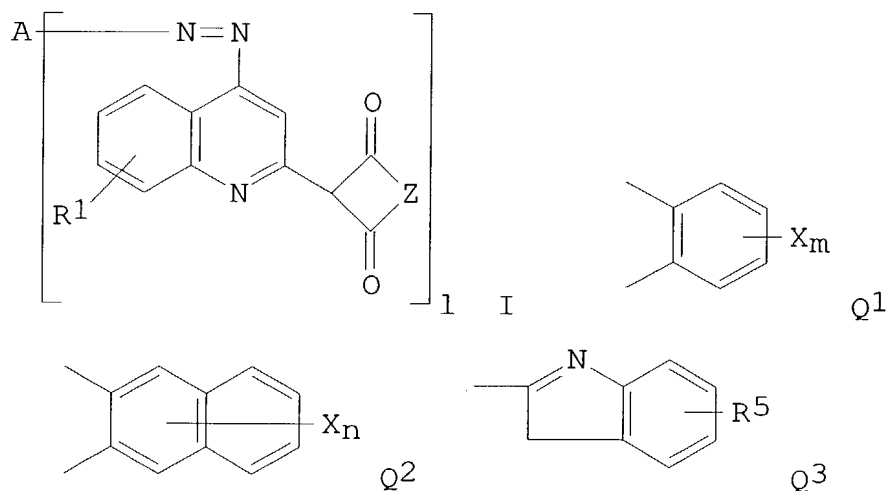


IT 159392-95-7P
 (yellow colorant for color filters and photoresists and liq.-cryst. display devices)
 IT 159392-98-0P 159393-00-7P 159393-02-9P
 159393-04-1P 159393-08-5P
 (yellow colorant for color filters and photoresists and liq.-cryst. display devices)

L6 ANSWER 10 OF 13 ZCAPLUS COPYRIGHT 2004 ACS on STN

1994:120709 Document No. 120:120709 Preparation of quinolyazo compounds and electrophotographic photoreceptors containing them. Ono, Hitoshi; Watabe, Junko (Mitsubishi Chemical Industries Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 05197176 A2 19930806 Heisei, 14 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1992-10246 19920123.

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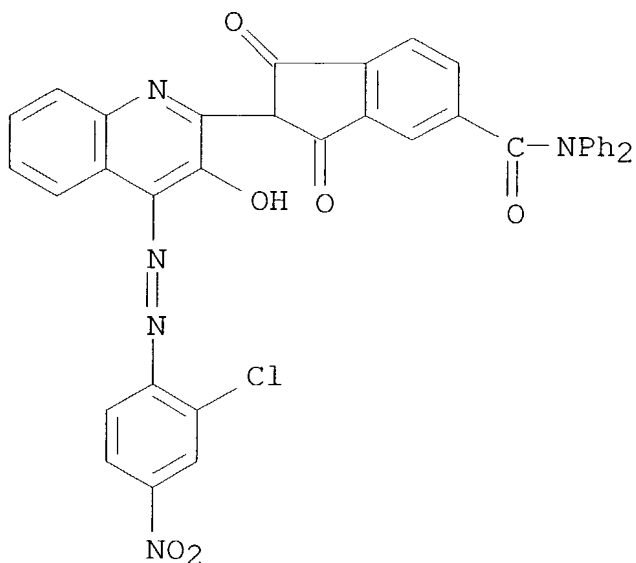
AB Electrophotog. photoreceptors comprising an elec. conductive support having thereon a photosensitive layer contg. the title compds. I [A = 1-valent arom. or heterocyclic group which may have linking group; R1 = H, halo, lower alkyl, lower alkoxy; Z = Q1, Q2; X = halo, lower alkyl, lower alkoxy, NO2, CO2R2, CONR3R4, Q3; R2-4 = H, (un)substituted alkyl, (un)substituted aryl; R5 = H, halo, lower alkyl, lower alkoxy, NO2; l = 1-4; m, n = 1-4] are claimed. The photoreceptors are excellent in sensitivity and durability.

IT 152456-84-3

(electrophotog. photoreceptor charge-generating agent)

RN 152456-84-3 ZCAPLUS

CN 1H-Indene-5-carboxamide, 2-[4-[(2-chloro-4-nitrophenyl)azo]-3-hydroxy-2-quinoliny]-2,3-dihydro-1,3-dioxo-N,N-diphenyl- (9CI) (CA INDEX NAME)



IT 152456-84-3

(electrophotog. photoreceptor charge-generating agent)

L6 ANSWER 11 OF 13 ZCAPLUS COPYRIGHT 2004 ACS on STN
 1994:41990 Document No. 120:41990 Dyes for color filters,
 photosensitive resist resin compositions containing the same, and
 color filters. Karasawa, Akio; Itoh, Hisato; Sugimoto, Kenichi
 (Mitsui Toatsu Chemicals, Inc., Japan). Eur. Pat. Appl. EP 546856
 A2 19930616, 38 pp. DESIGNATED STATES: R: DE, FR, GB, NL.
 (English). CODEN: EPXXDW. APPLICATION: EP 1992-311343 19921211.
 PRIORITY: JP 1991-328474 19911212.

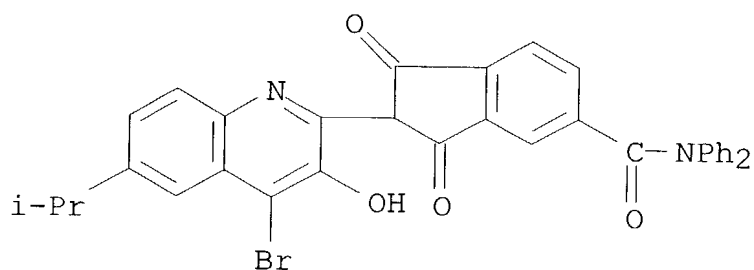
AB Dyes suitable for use in the fabrication of color filters contain
 one or more photopolymerizable substituents which may preferably be
 represented by the following formula: D-(A-Yn1)n2 wherein D
 represents a chromophoric nucleus, A denotes a connecting group, Y
 means the photopolymerizable group, n1 is 1-10000, and n2 stands for
 an integer of 1-10. Also described are photosensitive resist resin
 compns. contg. the dyes as well as color filters fabricated by
 curing the photosensitive resist resin compns.

IT 151321-71-0

(photopolymerizable dye)

RN 151321-71-0 ZCAPLUS

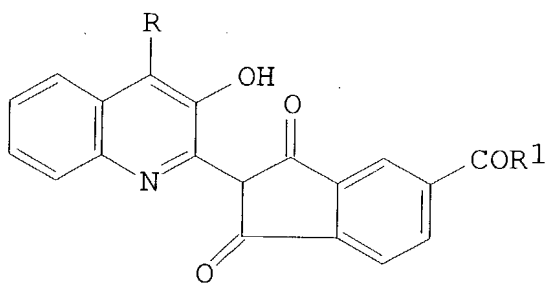
CN 1H-Indene-5-carboxamide, 2-[4-bromo-3-hydroxy-6-(1-methylethyl)-2-
 quinolinyl]-2,3-dihydro-1,3-dioxo-N,N-diphenyl- (9CI) (CA INDEX
 NAME)



IT 151321-71-0
(photopolymerizable dye)

L6 ANSWER 12 OF 13 ZCAPLUS COPYRIGHT 2004 ACS on STN
1981:524106 Document No. 95:124106 Liquid crystal composition
containing a quinophthalone series dye. Imahori, Seiichi; Kaneko,
Masaharu; Ono, Hitoshi; Imazeki, Shuji; Mukoh, Akio; Morishita,
Hirosada (Mitsubishi Chemical Industries Co., Ltd., Japan; Hitachi,
Ltd.). Ger. Offen. DE 3034249 19810319, 49 pp. (German). CODEN:
GWXXBX. APPLICATION: DE 1980-3034249 19800911.

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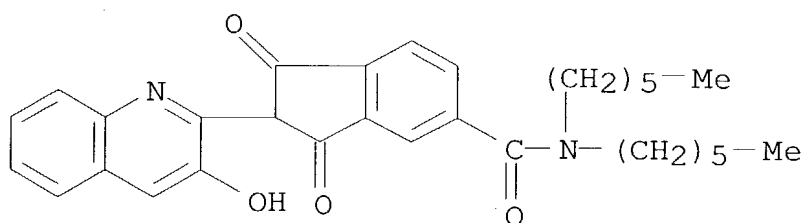


I

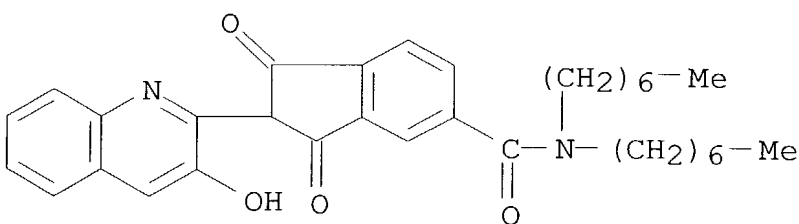
AB Liq. crystal compns. with a pos. dielec. anisotropy for use in
guest-host type optical display devices contain yellow pleochroic
quinophthalone dyes of the formula I (R = H, Cl, or Br; R1 = OR2 or
SR2 where R2 is alkyl, cycloalkyl, alkoxyalkyl, aryl, NR3R4 where R3
and R4 are H, alkyl, hydroxyalkyl, alkoxyalkyl, cycloalkyl, Ph,
aryl, or a satd. heterocycle). Thus, a liq. crystal compn. contg.
ZLI 1132, 4-(2-methylbutyl)-4'-cyanobiphenyl, and I (R = H; R1 =
p-C9H19C6H4O) was heated at 70° and after the mixt. was in
the isotropic state, the mixt. was well stirred and then cooled. An
electrooptical display cell contg. this compn. was decidedly yellow

in a potential-free state and light yellow on application of a potential. The dye showed a max. absorption wavelength of 447 nm and an ordering parameter of 0.66 in the above described host liq. crystal.

IT **78333-78-5**
 (liq. crystal compns. contg., for electrooptical display devices)
 RN 78333-78-5 ZCAPLUS
 CN 1H-Indene-5-carboxamide, N,N-dihexyl-2,3-dihydro-2-(3-hydroxy-2-quinolinyl)-1,3-dioxo- (9CI) (CA INDEX NAME)



IT **78350-82-0**
 (spectrum and ordering parameter of, in liq. crystal compns.)
 RN 78350-82-0 ZCAPLUS
 CN 1H-Indene-5-carboxamide, N,N-diheptyl-2,3-dihydro-2-(3-hydroxy-2-quinolinyl)-1,3-dioxo- (9CI) (CA INDEX NAME)



IT **78333-78-5**
 (liq. crystal compns. contg., for electrooptical display devices)
 IT **78350-82-0**
 (spectrum and ordering parameter of, in liq. crystal compns.)

L6 ANSWER 13 OF 13 ZCAPLUS COPYRIGHT 2004 ACS on STN
 1971:465297 Document No. 75:65297 Quinophthalone dyes. Kalz, Dietmar;
 Neef, Ruetger; Wolfrum, Gerhard (Farbenfabriken Bayer A.-G.). Ger.
 Offen. DE 1958097 19710519, 14 pp. (German). CODEN: GWXXBX.
 APPLICATION: DE 1969-1958097 19691119.

GI For diagram(s), see printed CA Issue.
 AB Hydroxyquinophthalone dyes (I, R1 = N(CH2CHBuEt)2, R2 = H; R1 =

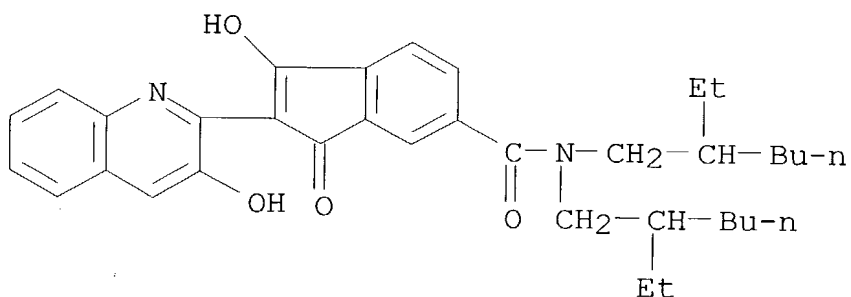
NMe(CH₂)₁₇Me, R₂ = Cl) with no free SO₃H groups, sol. in water-immiscible org. solvents, and which dye poly(ethylene terephthalate) (II) fibers, were prepd. Thus, I (R₁ = Cl, R₂ = H) in o-Cl₂C₆H₄ was heated to 90°, treated with (EtBuCHCH₂)₂NH and pyridine, and refluxed 2 hr to give 6-[N,N-bis(2-ethylhexyl)carbamoyl]-3-hydroxy-2-(3-hydroxy-2-quinolyl)indone (I, R₁ = N(CH₂CHBuEt)₂, R₂ = H), which dyed II a fast yellow shade.

IT 31948-33-1P

(prepn. of)

RN 31948-33-1 ZCAPLUS

CN Indene-6-carboxamide, N,N-bis(2-ethylhexyl)-3-hydroxy-2-(3-hydroxy-2-quinolyl)-1-oxo- (8CI) (CA INDEX NAME)



IT 31948-33-1P

(prepn. of)

=> d 120 1 ibib abs hitstr hitrn

L20 ANSWER 1 OF 1 ZCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:101249 ZCAPLUS

DOCUMENT NUMBER: 134:164627

TITLE: Yellow compounds and water-based ink-jet recording inks containing the compounds

INVENTOR(S): Matsuzaki, Yoriaki; Okuma, Tadashi; Oi, Ryu; Kohgo, Osamu

PATENT ASSIGNEE(S): Mitsui Chemicals, Inc., Japan

SOURCE: PCT Int. Appl., 84 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

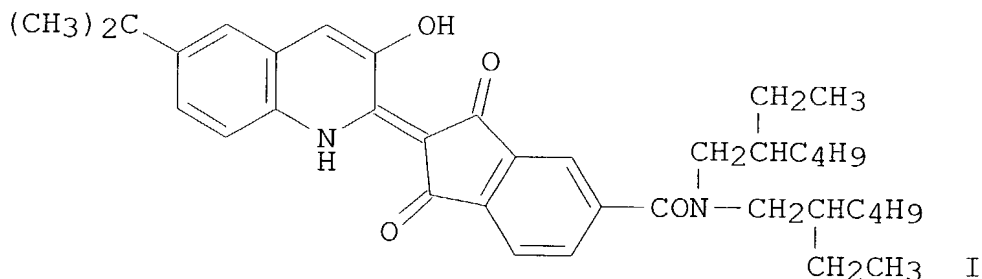
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001009256	A1	20010208	WO 2000-JP4973	20000726
W: CN, KR, US				
RW: DE, FR, GB				
JP 2001131454	A2	20010515	JP 2000-223256	20000725
JP 2001146562	A2	20010529	JP 2000-223257	20000725
EP 1125990	A1	20010822	EP 2000-949897	20000726
R: DE, FR, GB				

PRIORITY APPLN. INFO.:

JP 1999-215070	A	19990729
JP 1999-223982	A	19990806
JP 1999-235288	A	19990823
JP 1999-255772	A	19990909
WO 2000-JP4973	W	20000726

OTHER SOURCE(S): MARPAT 134:164627

GI



AB Quinophthalone compds. and/or pyridone azo compds. are used as dyes for inks having light resistance and storage stability. Thus, di-Me

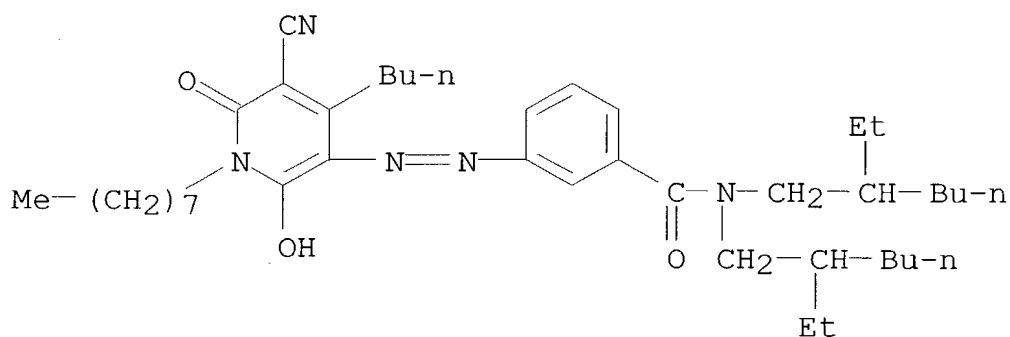
5-sodiosulfoisophthalate-dimethyl terephthalate-ethylene glycol-tricyclodecanedimethanol copolymer granules were dyed with I and mixed with glycerin and water to prep. an ink.

IT 324744-33-4P

(yellow pigments of quinophthalone compds. and pyridone azo compds. for water-based ink-jet recording inks)

RN 324744-33-4 ZCAPLUS

CN Benzamide, 3-[(4-butyl-5-cyano-1,6-dihydro-2-hydroxy-1-octyl-6-oxo-3-pyridinyl)azo]-N,N-bis(2-ethylhexyl)- (9CI) (CA INDEX NAME)



IT 324744-34-5 324744-40-3 324744-41-4

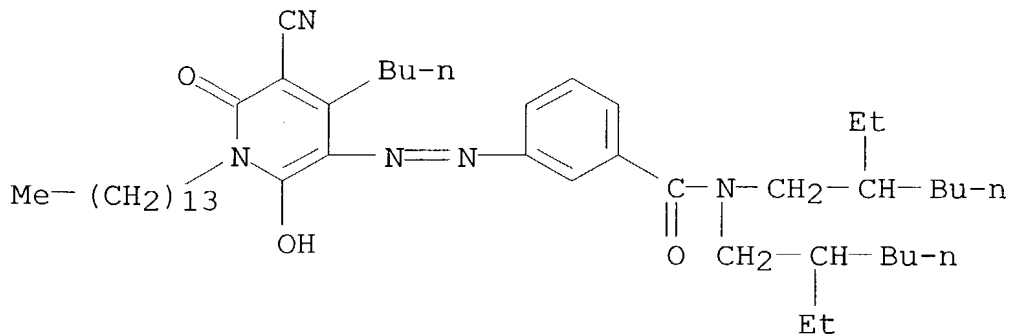
324744-42-5 324744-44-7 324744-45-8

324744-46-9

(yellow pigments of quinophthalone compds. and pyridone azo compds. for water-based ink-jet recording inks)

RN 324744-34-5 ZCAPLUS

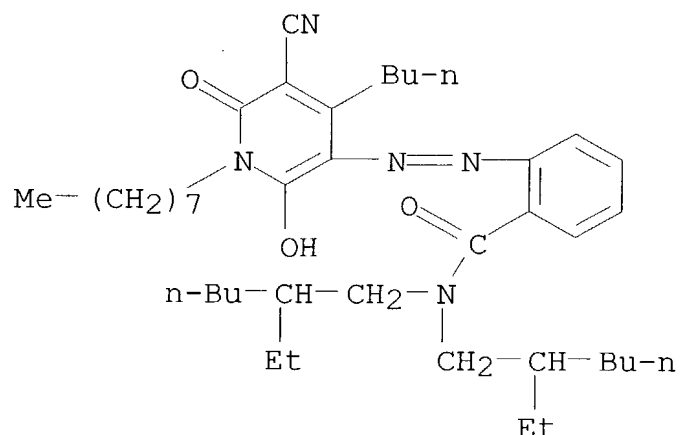
CN Benzamide, 3-[(4-butyl-5-cyano-1,6-dihydro-2-hydroxy-6-oxo-1-tetradecyl-3-pyridinyl)azo]-N,N-bis(2-ethylhexyl)- (9CI) (CA INDEX NAME)



RN 324744-40-3 ZCAPLUS

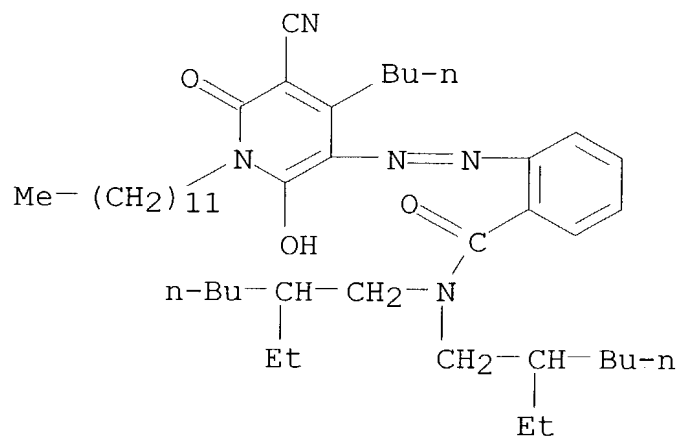
CN Benzamide, 2-[(4-butyl-5-cyano-1,6-dihydro-2-hydroxy-1-octyl-6-oxo-3-

pyridinyl)azo]-N,N-bis(2-ethylhexyl)- (9CI) (CA INDEX NAME)



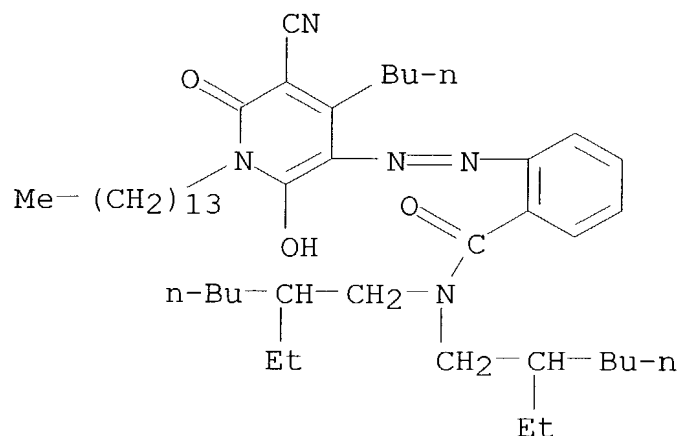
RN 324744-41-4 ZCAPLUS

CN Benzamide, 2-[(4-butyl-5-cyano-1-dodecyl-1,6-dihydro-2-hydroxy-6-oxo-3-pyridinyl)azo]-N,N-bis(2-ethylhexyl)- (9CI) (CA INDEX NAME)



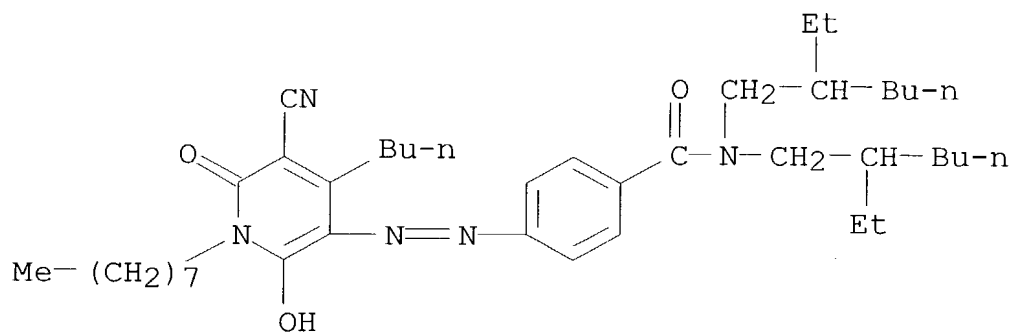
RN 324744-42-5 ZCAPLUS

CN Benzamide, 2-[(4-butyl-5-cyano-1,6-dihydro-2-hydroxy-6-oxo-1-tetradecyl-3-pyridinyl)azo]-N,N-bis(2-ethylhexyl)- (9CI) (CA INDEX NAME)



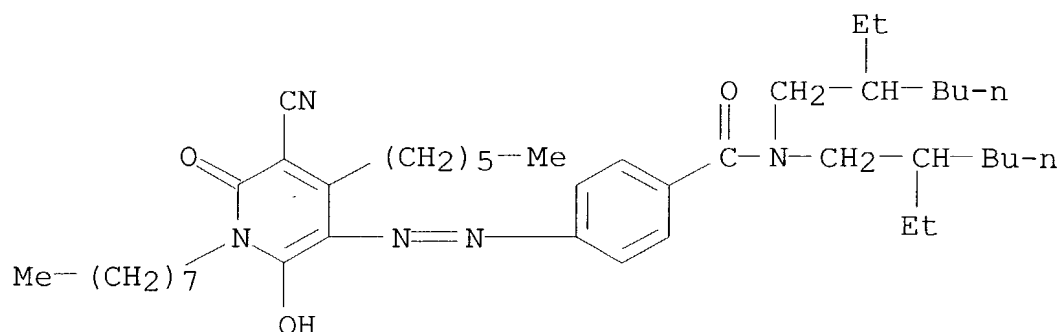
RN 324744-44-7 ZCAPLUS

CN Benzamide, 4-[(4-butyl-5-cyano-1,6-dihydro-2-hydroxy-1-octyl-6-oxo-3-pyridinyl)azo]-N,N-bis(2-ethylhexyl)- (9CI) (CA INDEX NAME)



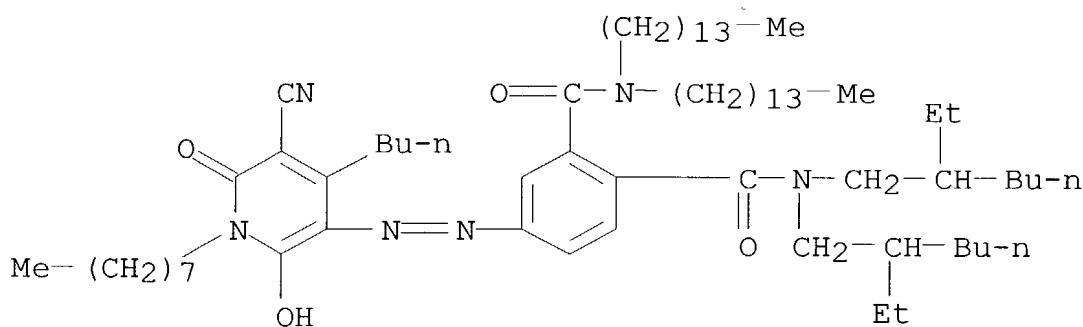
RN 324744-45-8 ZCAPLUS

CN Benzamide, 4-[(5-cyano-4-hexyl-1,6-dihydro-2-hydroxy-1-octyl-6-oxo-3-pyridinyl)azo]-N,N-bis(2-ethylhexyl)- (9CI) (CA INDEX NAME)



RN 324744-46-9 ZCAPLUS

CN 1,2-Benzenedicarboxamide, 4-[(4-butyl-5-cyano-1,6-dihydro-2-hydroxy-1-octyl-6-oxo-3-pyridinyl)azo]-N1,N1-bis(2-ethylhexyl)-N2,N2-ditetradecyl- (9CI) (CA INDEX NAME)



IT 324744-33-4P

(yellow pigments of quinophthalone compds. and pyridone azo compds. for water-based ink-jet recording inks)

IT 324744-34-5 324744-40-3 324744-41-4

324744-42-5 324744-44-7 324744-45-8

324744-46-9

(yellow pigments of quinophthalone compds. and pyridone azo compds. for water-based ink-jet recording inks)

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

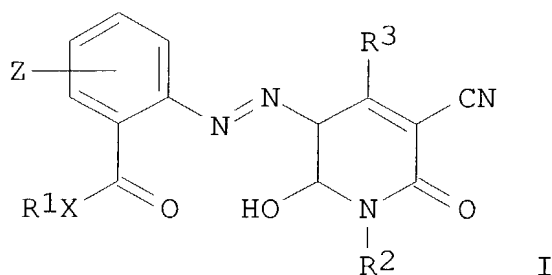
=> d 121 1-34 cbib abs hitstr hitrn

L21 ANSWER 1 OF 34 ZCAPLUS COPYRIGHT 2004 ACS on STN

2004:39417 Document No. 140:95726 Phase change inks containing azo

pyridone colorants. Banning, Jeffrey H.; Wu, Bo; Mayo, James D.; Duff, James M.; Carlini, Rina; Thomas, Jule W.; Smith, Paul F. (Xerox Corporation, USA). U.S. Pat. Appl. Publ. US 2004007155 A1 20040115, 47 pp. (English). CODEN: USXXCO. APPLICATION: US 2002-185264 20020627.

GI



AB Disclosed is a phase change ink compn. comprising a phase change ink carrier and a colorant compd. I, wherein R1, R2 = alkyl, aryl, arylalkyl, alkylaryl, alkoxy, aryloxy, arylalkyloxy, alkylaryloxy, polyalkyleneoxy, polyaryleneoxy, polyarylalkyleneoxy, polyalkylaryleneoxy, heterocyclic, silyl, siloxane, polysilylene, polysiloxane group, or (CH₂)_rXC(:O)(CH₂)_sCH₃ (only for R₂); R₃ = alkyl, aryl, arylalkyl, or alkylaryl group; X = direct bond, O, S, or NR₄₀; R₄₀ = H, alkyl, aryl, arylalkyl, alkylaryl, or CR₅₀OR₆₀; R₅₀, R₆₀ = independently H, alkyl, aryl, arylalkyl, or alkylaryl; Z = H, halogen, nitro, alkyl, aryl, arylalkyl, alkylaryl, or C(:O)R₇₀; R₇₀ = alkyl, aryl, arylalkyl, alkylaryl, alkoxy, aryloxy, arylalkyloxy, alkylaryloxy, polyalkyleneoxy, polyaryleneoxy, polyarylenealkyleneoxy, polyalkylenearyleneoxy, heterocyclic, silyl, siloxane, polysilylene, polysiloxane, or SO₂R₈₀; R₈₀ = H, alkyl, aryl, arylalkyl, alkylaryl, alkoxy, aryloxy, arylalkyloxy, alkylaryloxy, polyalkyleneoxy, polyaryleneoxy, polyarylenealkyleneoxy, polyalkylenearyleneoxy, heterocyclic, silyl, siloxane, polysilylene, polysiloxane, or PO₃R₉₀; R₉₀ = H, alkyl, aryl, arylalkyl, alkylaryl, alkoxy, aryloxy, arylalkyloxy, alkylaryloxy, polyalkyleneoxy, polyaryleneoxy, polyarylenealkyleneoxy, polyalkylenearyleneoxy, heterocyclic, silyl, siloxane, polysilylene, polysiloxane; and r, s = no. Thus, octadecylamine 18.9, Et cyanoacetate 7.9, and Et acetoacetate 10.08 g were reacted to give a N-stearyl pyridone deriv., which were treated with sodium hydroxide and anhyd. sodium acetate, reacted with diazonium salt of menthyl anthranilate to give a colorant with m.p. 158°, max. wavelength 430 nm, molar absorptivity 3.94 + 104 L/mol-cm, 5.57 g of which was mixed with PE Wax 655 39.61, Kemamide S 180 stearyl stearamide wax 17.96, tetramide resin

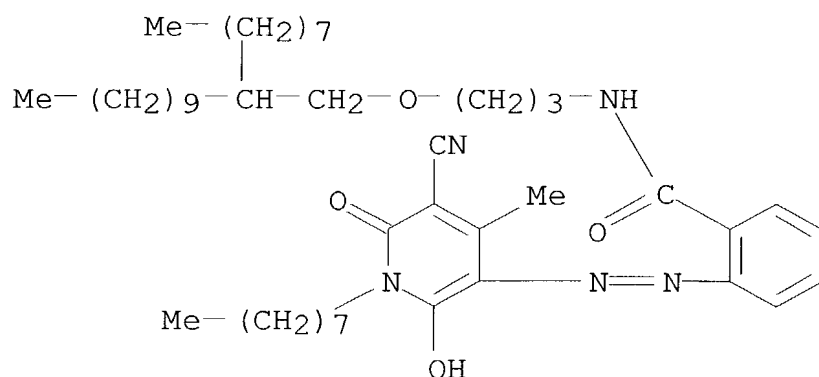
22.77, urethane resin 9.88, glycerol-based urethane resin 4.01, and Naugard 445 0.20 parts to give an ink with viscosity 10.42 cP and spectral strength 3517 mL/g-cm.

IT 556062-32-9 556062-34-1 556062-35-2

(phase change inks contg. azo pyridone colorants)

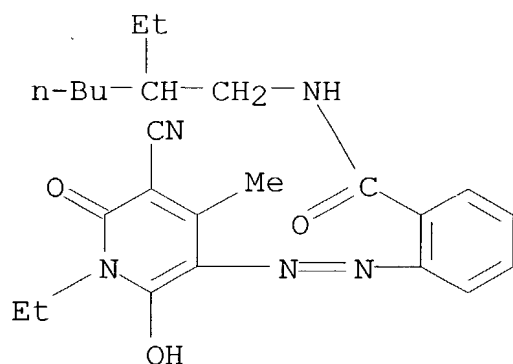
RN 556062-32-9 ZCAPLUS

CN Benzamide, 2-[(5-cyano-1,6-dihydro-2-hydroxy-4-methyl-1-octyl-6-oxo-3-pyridinyl)azo]-N-[3-[(2-octyldodecyl)oxy]propyl]- (9CI) (CA INDEX NAME)



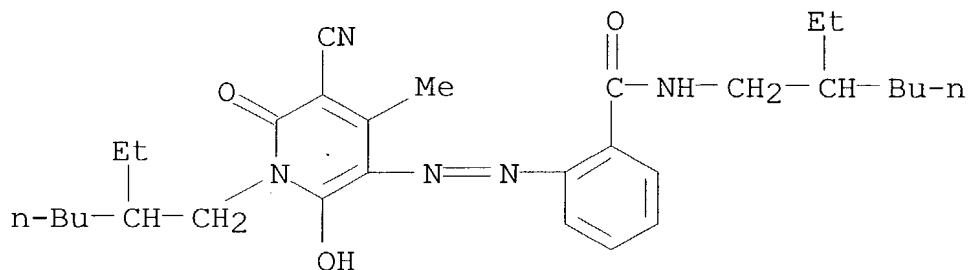
RN 556062-34-1 ZCAPLUS

CN Benzamide, 2-[(5-cyano-1-ethyl-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]-N-(2-ethylhexyl)- (9CI) (CA INDEX NAME)



RN 556062-35-2 ZCAPLUS

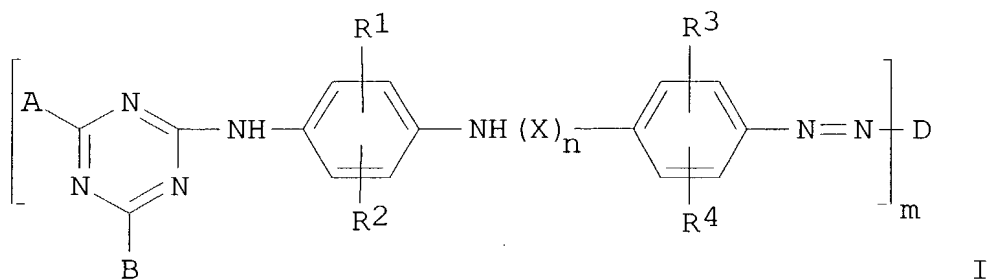
CN Benzamide, 2-[[5-cyano-1-(2-ethylhexyl)-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl]azo]-N-(2-ethylhexyl)- (9CI) (CA INDEX NAME)



IT 556062-32-9 556062-34-1 556062-35-2
(phase change inks contg. azo pyridone colorants)

L21 ANSWER 2 OF 34 ZCAPLUS COPYRIGHT 2004 ACS on STN
2003:823449 Document No. 139:324745 Water-soluble azo dye involving triazine structure for dyeing or printing of paper. Taniguchi, Koichi (Nippon Chemical Works Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2003301120 A2 20031021, 13 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2002-109397 20020411.

GI



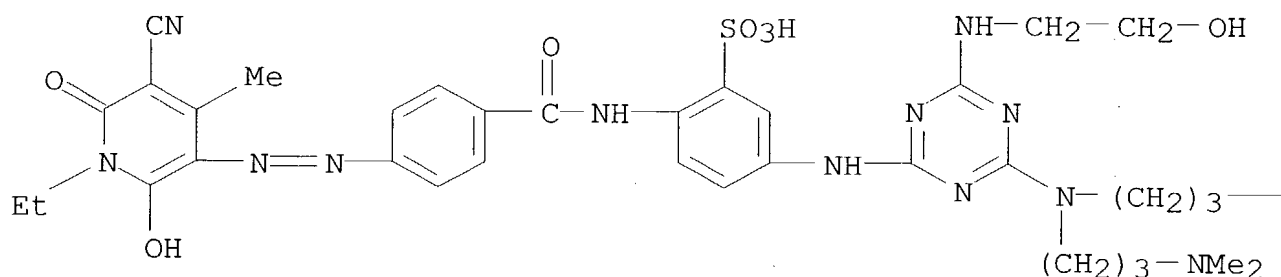
AB The dye is that represented as I [D = coupler residue; X = CO, SO₂, n = 0, 1; R₁-R₄ = H, C₁-4 alkyl, alkoxy, sulfonic acid, carboxy; A, B = halogen, OH, (substituted) amino, heterocycle; m = 1, 2]. The dye is used for printing or dyeing of paper without environment pollution by wastewater. Thus, reaction of cyanuric chloride, diethylaminopropylamine, morpholine, and 4,4'-diaminobenzanilide gave a diazo component, which was coupled with 3-methyl-5-pyrazolone to give the dye. A sheet of paper was dyed with the dye to give a light- and moisture-resistant yellow sheet with high color d. assocd. with release of colorless wastewater.

IT 613685-36-2P
(water-sol. azo dye involving triazine structure for dyeing of paper without environment pollution by wastewater)

RN 613685-36-2 ZCAPLUS

CN Benzenesulfonic acid, 5-[[4-[bis[3-(dimethylamino)propyl]amino]-6-
 [(2-hydroxyethyl)amino]-1,3,5-triazin-2-yl]amino]-2-[[4-[(5-cyano-1-
 ethyl-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-
 pyridinyl)azo]benzoyl]amino]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

—NMe₂

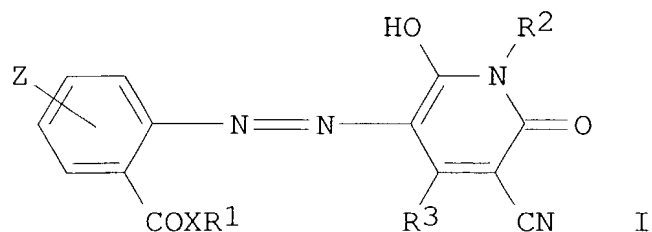
IT 613685-36-2P

(water-sol. azo dye involving triazine structure for dyeing of
 paper without environment pollution by wastewater)

L21 ANSWER 3 OF 34 ZCAPLUS COPYRIGHT 2004 ACS on STN

2003:524044 Document No. 139:86679 Azo pyridone colorants. Banning,
 Jeffrey H.; Carlini, Rina; Mayo, James D.; Duff, James M.; Jaeger,
 C. Wayne (Xerox Corporation, USA). U.S. US 6590082 B1 20030708, 44
 pp. (English). CODEN: USXXAM. APPLICATION: US 2002-186024
 20020627.

GI

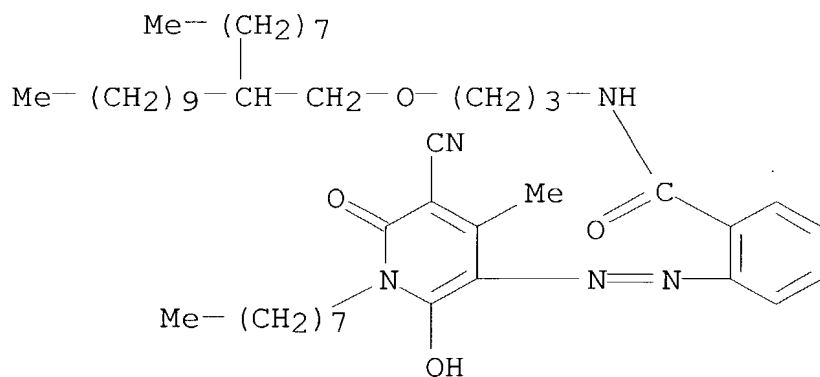


AB Disclosed are azo pyridones (I; R1, R2, R3 = org. group; X = O, NH; Z = H, halogen, nitro, org. group). I are useful as colorants in phase change inks. In an example, N-stearylpyridone was prepd. and then coupled with diazotized menthyl anthranilate to give a bright-yellow-orange colorant.

IT **556062-32-9 556062-34-1 556062-35-2**
(colorant; azo pyridone colorants)

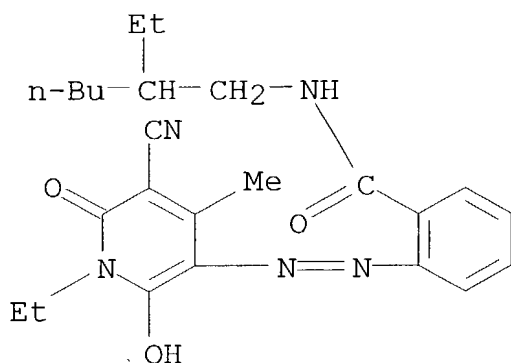
RN 556062-32-9 ZCAPLUS

CN Benzamide, 2-[(5-cyano-1,6-dihydro-2-hydroxy-4-methyl-1-octyl-6-oxo-3-pyridinyl)azo]-N-[3-[(2-octyldodecyl)oxy]propyl]- (9CI) (CA INDEX NAME)



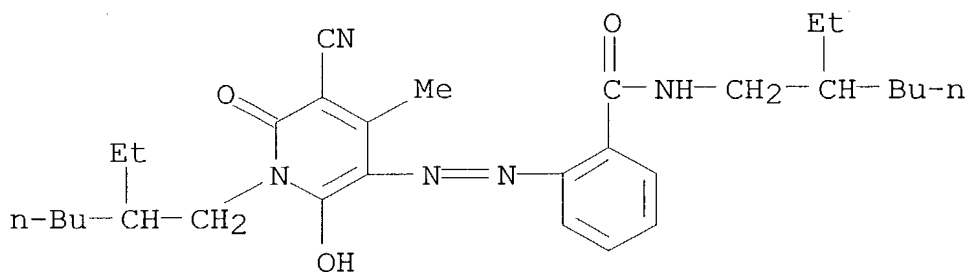
RN 556062-34-1 ZCAPLUS

CN Benzamide, 2-[(5-cyano-1-ethyl-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]-N-(2-ethylhexyl)- (9CI) (CA INDEX NAME)



RN 556062-35-2 ZCAPLUS

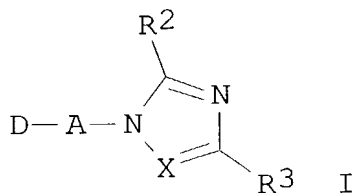
CN Benzamide, 2-[[5-cyano-1-(2-ethylhexyl)-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl]azo]-N-(2-ethylhexyl)- (9CI) (CA INDEX NAME)



IT 556062-32-9 556062-34-1 556062-35-2
(colorant; azo pyridone colorants)

L21 ANSWER 4 OF 34 ZCAPLUS COPYRIGHT 2004 ACS on STN
1998:333766 Document No. 129:55534 Thermally transferable dyes and thermal transfer materials using the same with excellent storability and providing sharp images. Ozawa, Tetsuo; Minakami, Junji (Mitsubishi Chemical Industries Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 10129127 A2 19980519 Heisei, 15 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1996-291519 19961101.

GI



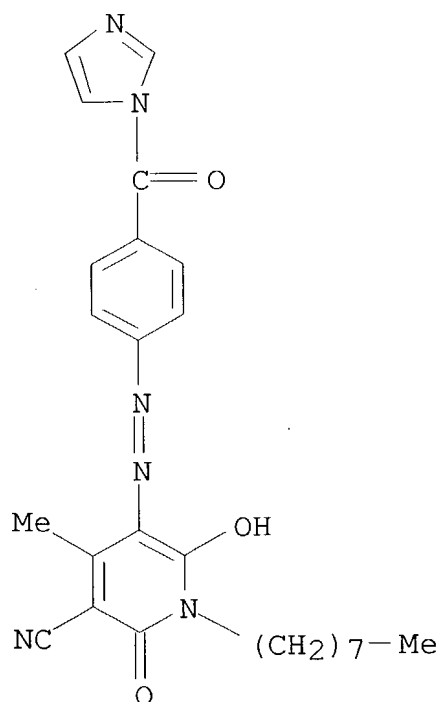
AB The non-staining title dyes have the general formula I, wherein D = dye residue; A = divalent linking group; X = CR₁, N; R₁-3 = nonionic substituent, e.g., 4-(1-imidazolylcarbonyl)azobenzene.

IT **208592-74-9P**

(thermally transferable dyes and thermal transfer materials using the same with excellent storability and providing sharp images)

RN 208592-74-9 ZCAPLUS

CN 1H-Imidazole, 1-[4-[(5-cyano-1,6-dihydro-2-hydroxy-4-methyl-1-octyl-6-oxo-3-pyridinyl)azo]benzoyl]- (9CI) (CA INDEX NAME)

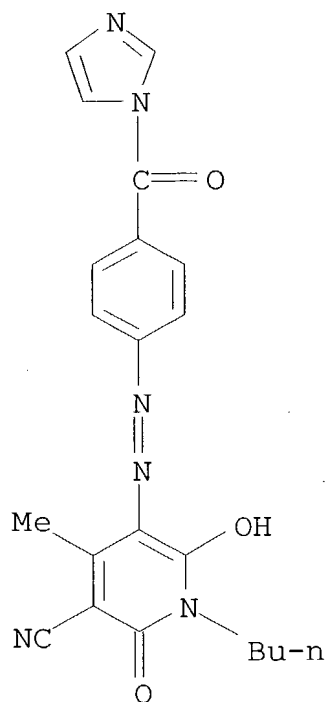


IT **208592-75-0 208592-76-1**

(thermally transferable dyes and thermal transfer materials using the same with excellent storability and providing sharp images)

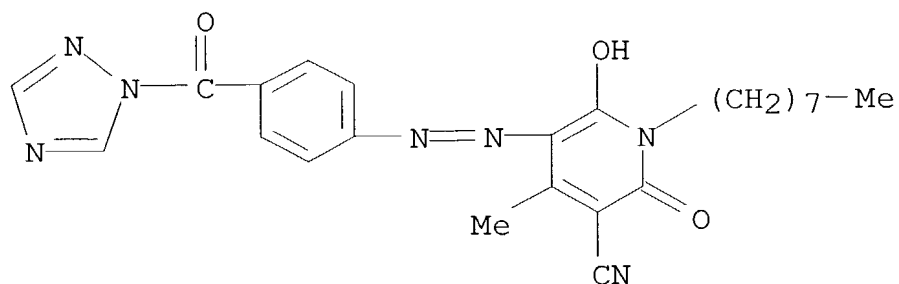
RN 208592-75-0 ZCAPLUS

CN 1H-Imidazole, 1-[4-[(1-butyl-5-cyano-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]benzoyl]- (9CI) (CA INDEX NAME)



RN 208592-76-1 ZCAPLUS

CN 1H-1,2,4-Triazole, 1-[4-[(5-cyano-1,6-dihydro-2-hydroxy-4-methyl-1-octyl-6-oxo-3-pyridinyl)azo]benzoyl]- (9CI) (CA INDEX NAME)



IT 208592-74-9P

(thermally transferable dyes and thermal transfer materials using the same with excellent storability and providing sharp images)

IT 208592-75-0 208592-76-1

(thermally transferable dyes and thermal transfer materials using

the same with excellent storability and providing sharp images)

L21 ANSWER 5 OF 34 ZCAPLUS COPYRIGHT 2004 ACS on STN

1997:571213 Document No. 127:197776 Thermal-transfer dye-donating material and thermal-transfer material. Ozawa, Tetsuo; Mizukami, Junji (Mitsubishi Chemical Industries Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 09220858 A2 19970826 Heisei, 16 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1996-29320 19960216.

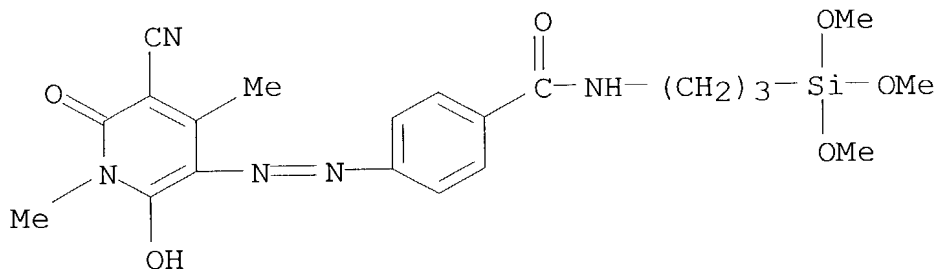
AB The dye-donating material has a layer having a Si-contg. dye $DA(CH_2)_nSi(R_1)_m(OR_2)_n$ (D = dye residue; A = single bond, divalent bond; $R_1, 2 = C1-5$ alkyl; $m = 0, 1-2$; $n = 1-3$). The material has the dye-donating material and an active H compd.-contg. image-receiving layer on a support. The material is useful for a facsimile, a copying machine, a printer, etc. The material gives good images with high sensitivity and storage stability.

IT 194419-81-3

(thermal-transfer material contg. Si-contg. dye and active H-contg. image-receiving layer for images with storage stability)

RN 194419-81-3 ZCAPLUS

CN Benzamide, 4-[(5-cyano-1,6-dihydro-2-hydroxy-1,4-dimethyl-6-oxo-3-pyridinyl)azo]-N-[3-(trimethoxysilyl)propyl]- (9CI) (CA INDEX NAME)



IT 194419-81-3

(thermal-transfer material contg. Si-contg. dye and active H-contg. image-receiving layer for images with storage stability)

L21 ANSWER 6 OF 34 ZCAPLUS COPYRIGHT 2004 ACS on STN

1996:725317 Document No. 126:48352 Dyes for color filters, and photosensitive resin compositions containing them. Itoh, Hisato; Karasawa, Akio; Sugimoto, Kenichi (Mitsui Toatsu Chemicals, Inc., Japan). U.S. US 5578419 A 19961126, 35 pp., Cont.-in-part of U.S. Ser. No. 987,960, abandoned. (English). CODEN: USXXAM. APPLICATION: US 1994-223605 19940406. PRIORITY: JP 1991-328474 19911212; US 1992-987960 19921211.

AB Dyes suitable for use in the fabrication of color filters are represented by $D(AYn_1)n_2$, where D represents a chromophoric (di)phenoxy- or (phenylthio)anthraquinone nucleus, A denotes a

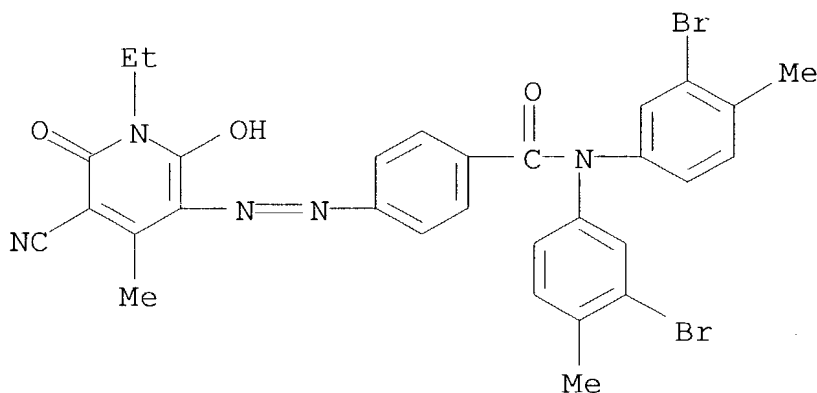
connecting group, Y is a photopolymerizable group having one of several specified structures, n1 is 1-10,000, and n2 is 1-10. Thus, 1-amino-4-hydroxy-2-(p-tolyloxy)anthraquinone was condensed with N-(chloromethyl)-2-phenylmaleimide in C₂H₄Cl₂ in the presence of ZnCl₂ to give a dye with λ_{\max} 512 nm.

IT 151321-73-2P

(dyes for color filters and photosensitive resin compns. contg. them)

RN 151321-73-2 ZCAPLUS

CN Benzamide, N,N-bis(3-bromo-4-methylphenyl)-4-[(5-cyano-1-ethyl-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]- (9CI) (CA INDEX NAME)



IT 151321-73-2P

(dyes for color filters and photosensitive resin compns. contg. them)

L21 ANSWER 7 OF 34 ZCAPLUS COPYRIGHT 2004 ACS on STN

1996:660889 Document No. 125:303181 Blue reactive dye mixtures and their use. Bastian, Andreas; Krallmann, Reinhold; Laws, Regina; Suelflow, Manfred (BASF A.-G., Germany). Ger. Offen. DE 19509956 A1 19960919, 10 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1995-19509956 19950318.

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Blue dye mixts. contain I (R = Cl-4-alkyl; M⁺ = cation; X1 = Br, Cl, F) and II (L = C2-4-alkylene optionally contg. 1 O; M⁺ = cation; X2 = Br, Cl, F; Y = vinyl or group convertible thereto) in 70:30 to

98:2 ratio and are used for dyeing or printing of OH- or N-contg. substrates. They are esp. suitable for blue components of trichromic mixts. for cotton compns. An example using I (R = Me, M = Na; X1 = Cl), II (L = ethyleneoxyethylene; M = Na; X2 = F; Y = vinyl), a yellow to yellow-brown reactive azo dye, and a red to red-brown reactive azo dye in 1.3:0.14:0.9:0.55 ratio on cotton provided a brown shade of excellent fastness.

IT

183253-28-3

(trichromic compns.; reactive dye mixts. for cotton)

RN

183253-28-3 ZCAPLUS

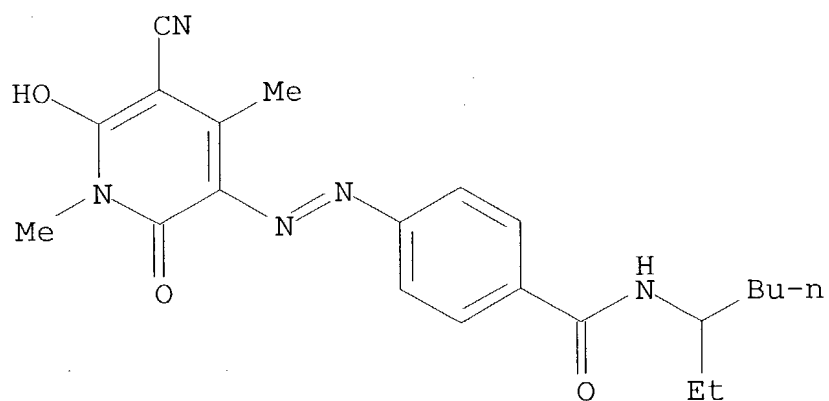
CN

β -Alanine, N-ethyl-N-[4-[(5-nitro-2,1-benzisothiazol-3-yl)azo]phenyl]-, methyl ester, mixt. with N-[5-[bis[2-(acetyloxy)ethyl]amino]-2-[(2-chloro-4-nitrophenyl)azo]phenyl]acetamide, 2-[[8-[[4-chloro-6-[[3-[[[4-chloro-6-[[7-[(1,5-disulfo-2-naphthalenyl)azo]-8-hydroxy-3,6-disulfo-1-naphthalenyl]amino]-1,3,5-triazin-2-yl]amino]methyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-1-hydroxy-3,6-disulfo-2-naphthalenyl]azo]-1,5-naphthalenedisulfonic acid, 4-[(5-cyano-1,2-dihydro-6-hydroxy-1,4-dimethyl-2-oxo-3-pyridinyl)azo]-N-(1-ethylpentyl)benzamide, disodium pentahydrogen [μ -[2-[[[3-[[4-[[5-[[4-[[3-[[[(2-carboxy-5-sulfophenyl)azo]phenylmethyl]azo]-2-hydroxy-5-sulfophenyl]amino]-6-chloro-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]methylamino]-6-chloro-1,3,5-triazin-2-yl]amino]-2-hydroxy-5-sulfophenyl]azo]phenylmethyl]azo]-4-sulfobenzoato(11-)]dicuprate(7-), 3,3'-[(methyl-1,2-phenylene)bis[imino(6-chloro-1,3,5-triazine-4,2-diyl)imino[2-(acetylamino)-5-methoxy-4,1-phenylene]azo]]bis[1,5-naphthalenedisulfonic acid] and sodium dihydrogen [2-[[[3-[[4-[[2-[[2-(ethenylsulfonyl)ethoxy]ethyl]amino]-6-fluoro-1,3,5-triazin-2-yl]amino]-2-hydroxy-5-sulfophenyl]azo]phenylmethyl]azo]-4-sulfobenzoato(5-)]cuprate(3-) (9CI) (CA INDEX NAME)

CM 1

CRN 183133-00-8

CMF C22 H27 N5 O3



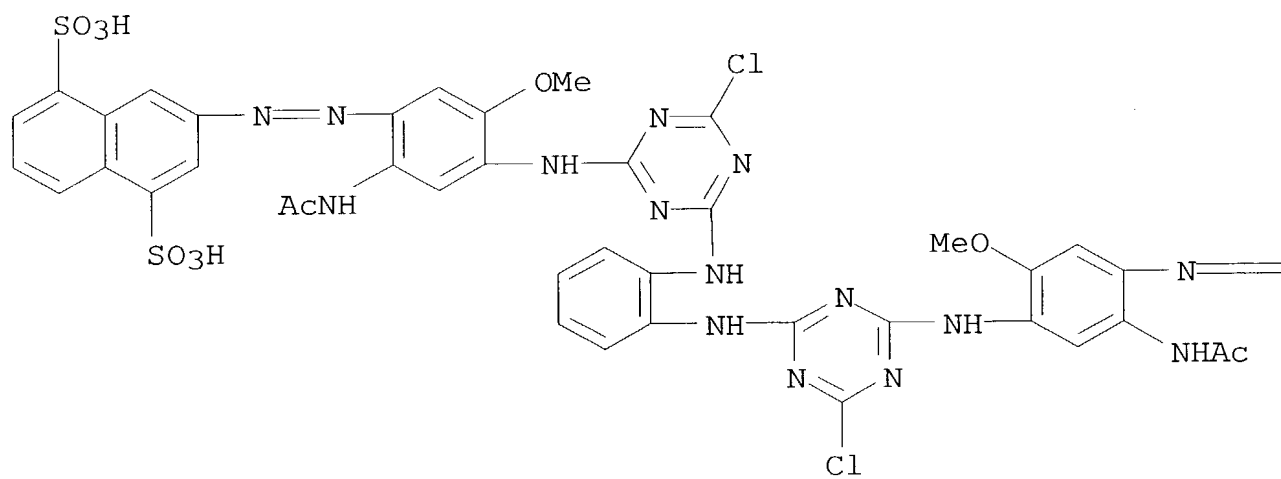
CM 2

CRN 183132-98-1

CMF C51 H42 Cl2 N16 O16 S4

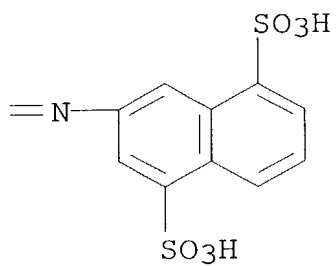
CCI IDS

PAGE 1-A



D1-Me

PAGE 1-B



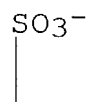
CM 3

CRN 183132-97-0

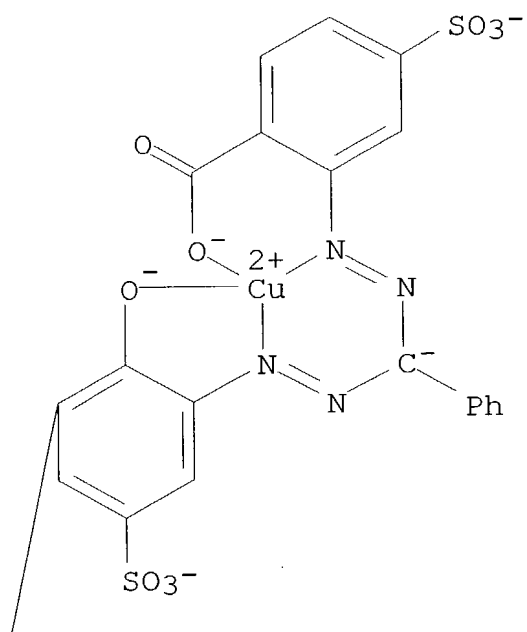
CMF C53 H29 Cl2 Cu2 N18 O21 S5 . 5 H . 2 Na

CCI CCS

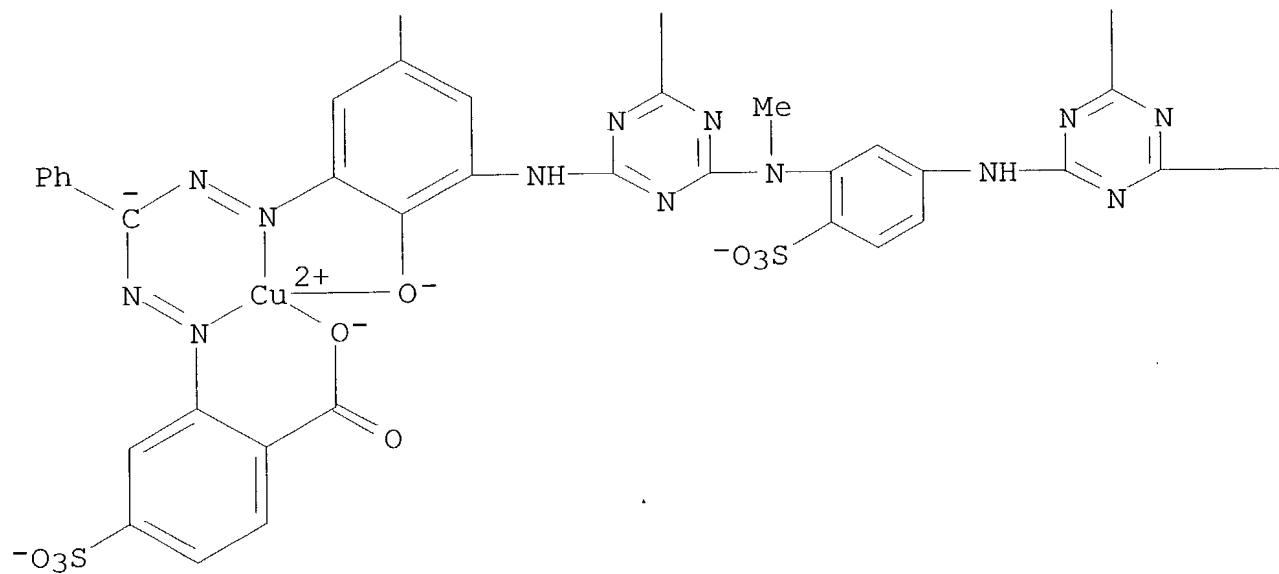
PAGE 1-A



PAGE 1-B



PAGE 2-A

● 5 H^+

PAGE 2-B

● 2 Na^+

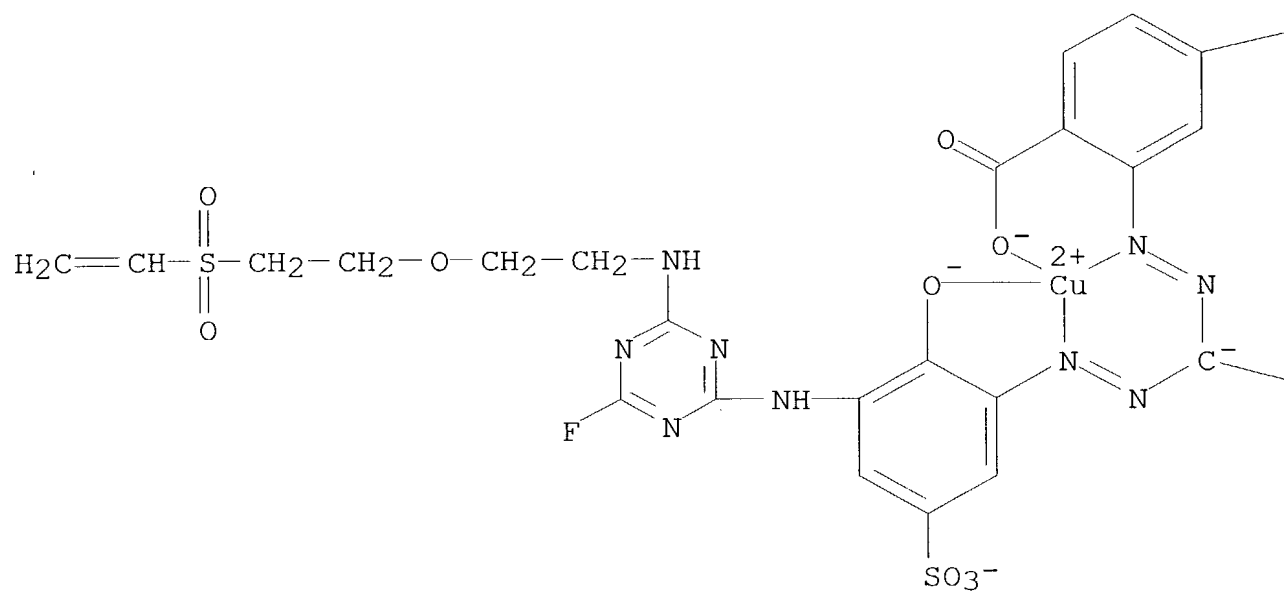
CM 4

CRN 183132-96-9

CMF C29 H23 Cu F N9 O12 S3 . 2 H . Na

CCI CCS

PAGE 1-A



PAGE 1-B

— SO_3^- ● 2 H^+ ● Na^+

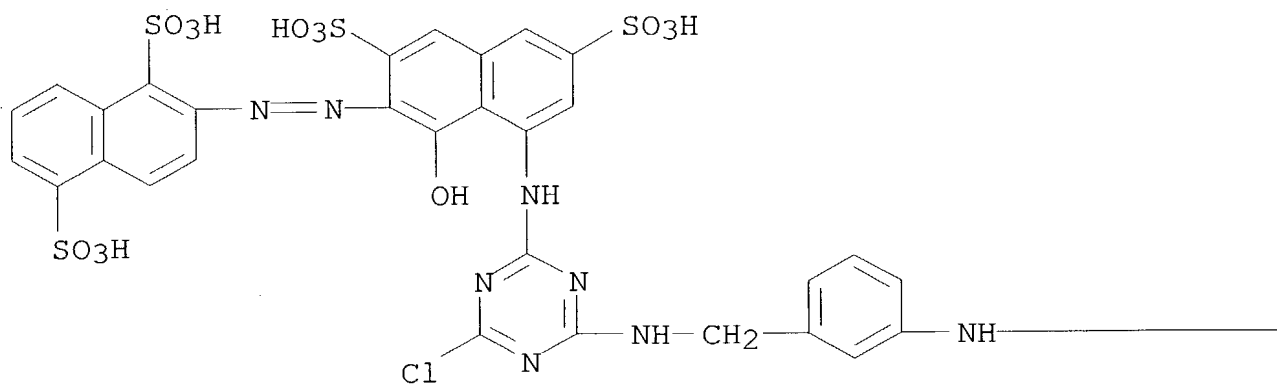
— Ph

CM 5

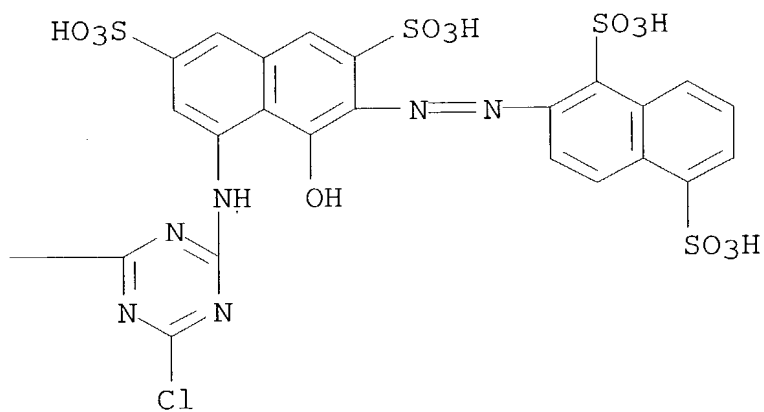
CRN 129651-19-0

CMF C53 H36 Cl2 N14 O26 S8

PAGE 1-A



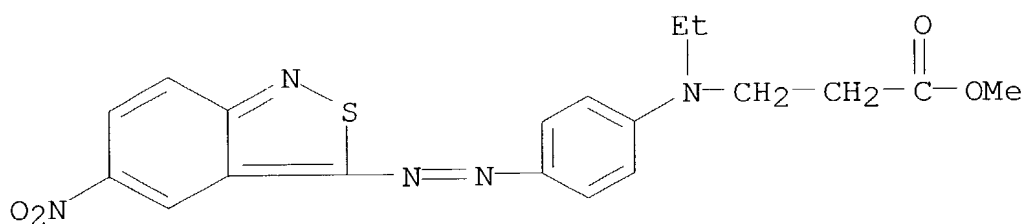
PAGE 1-B



CM 6

CRN 52239-04-0

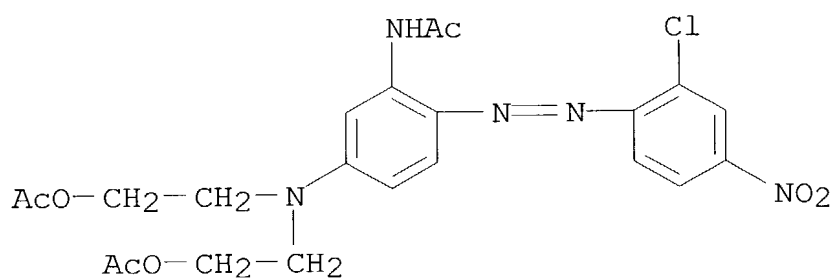
CMF C19 H19 N5 O4 S



CM 7

CRN 1533-78-4

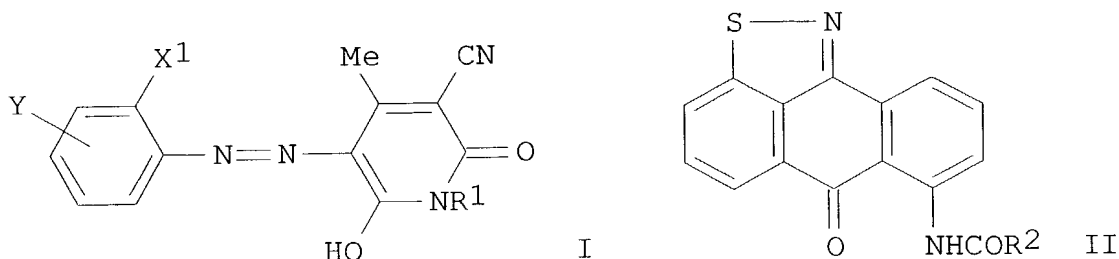
CMF C22 H24 Cl N5 O7



IT **183253-28-3**
(trichromic compns.; reactive dye mixts. for cotton)

L21 ANSWER 8 OF 34 ZCAPLUS COPYRIGHT 2004 ACS on STN
1996:248325 Document No. 124:319592 Yellow dye compositions containing pyridones and isothiazoleanthrones and dyeing of hydrophobic materials with the compositions. Katsuta, Osayuki; Yabushita, Shinichi; Hashizume, Shuhei (Sumitomo Chemical Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 08034933 A2 19960206 Heisei, 7 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1994-169759 19940721.

GI



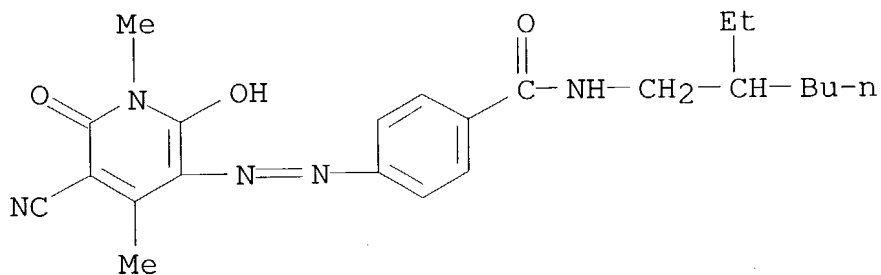
AB The title compns. with good build up, leveling properties, reproducibility, and light fastness, contain pyridones I [X1 = H, halo, cyano, NO₂; Y = H, halo, phenylsulfonyloxy, (C1-4 alkyl)aminosulfonyloxy, C1-4 alkoxy-C1-4 alkoxy-C1-4 alkoxy-carbonyl, C1-8 linear or branched alkylaminosulfonyl, C1-8 linear or branched alkylaminocarbonyl, NO₂, (5- or 6-membered O-contg. cycloalkyl-substituted)C1-4 alkoxy-carbonyl, phenoxy-C1-4-alkoxy-carbonyl; R1 = H, C1-8 linear or branched alkyl, (Ph-substituted)amino] and isothiazoleanthrones II [R2 = (un)substituted C1-4 alkyl, C1-4 alkoxy, Ph]. An aq. dispersion of I (R1 = Et; X1 = Cl; Y = 4-nitro) 150, II (R2 = Ph) 150, Na naphthalenesulfonate-HCHO adduct 300, and ligninsulfonic acid 350 g was spray dried to give a yellow disperse dye compn.

IT **30449-81-1**

(in compns. for dyeing hydrophobic materials in lightfast yellow shades)

RN 30449-81-1 ZCAPLUS

CN Benzamide, 4-[(5-cyano-1,6-dihydro-2-hydroxy-1,4-dimethyl-6-oxo-3-pyridinyl)azo]-N-(2-ethylhexyl)- (9CI) (CA INDEX NAME)

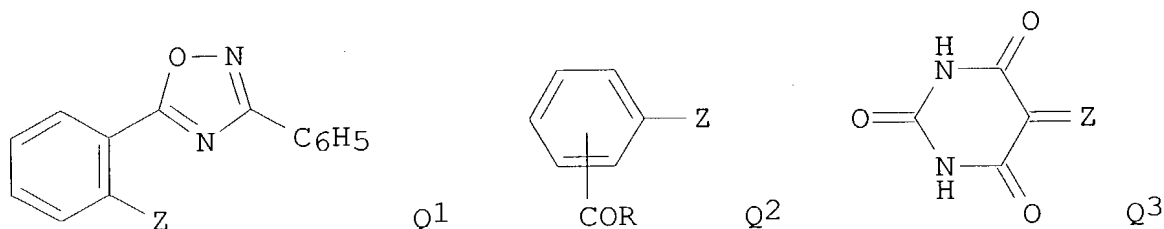
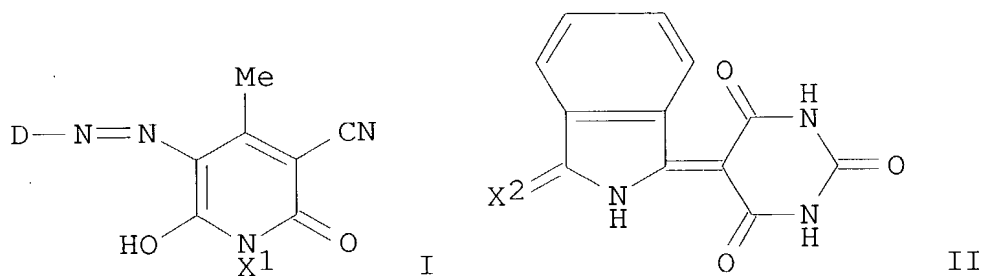


IT **30449-81-1**

(in compns. for dyeing hydrophobic materials in lightfast yellow shades)

1996:56348 Document No. 124:101841 Electrophotographic color toner for providing high quality images. Dyllick-brenzinger, Rainer; Garcia, Espino Andres Carlos; Beck, Karin Heidrum (BASF A.-G., Germany). Ger. Offen. DE 4420280 A1 19951214, 9 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1994-4420280 19940610.

GI



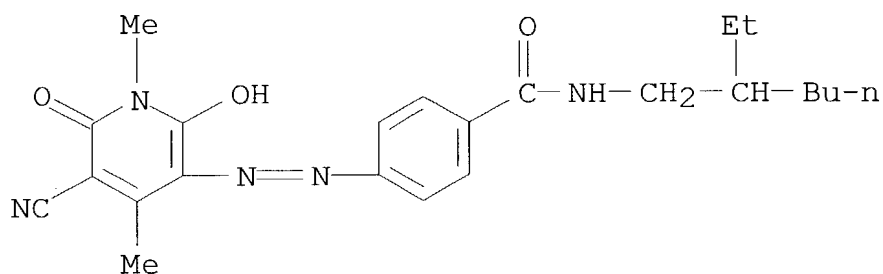
AB The title toner comprises a polymer binder and colorants selected from I and/or II [D = Q1, Q2; R = C1-13 alkylamino, C1-4 alkyl substituted Ph, phenoxy-C2-4 alkoxy; X1 = H, C1-6 alkyl, amino-substituted C1-6 alkyl; X2 = O, Q3; Z = connecting site].

IT **30449-81-1**

(electrophotog. color toner comprising)

RN 30449-81-1 ZCAPLUS

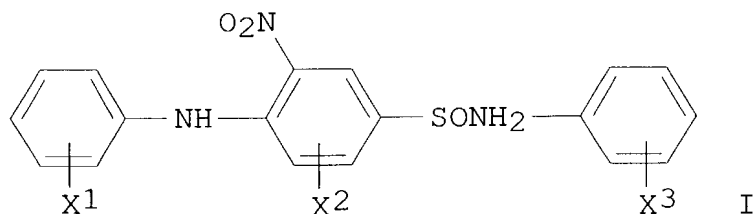
CN Benzamide, 4-[(5-cyano-1,6-dihydro-2-hydroxy-1,4-dimethyl-6-oxo-3-pyridinyl)azo]-N-(2-ethylhexyl)- (9CI) (CA INDEX NAME)



IT **30449-81-1**
(electrophotog. color toner comprising)

L21 ANSWER 10 OF 34 ZCAPLUS COPYRIGHT 2004 ACS on STN
1995:543513 Document No. 123:69905 Dyes-containing sheet for density
filter. Koshida, Hitoshi; Aida, Isamu; Irisato, Yoshihiro; Takuma,
Hirosuke (Mitsui Toatsu Chemicals, Japan). Jpn. Kokai Tokkyo Koho
JP 06294909 A2 19941021 Heisei, 17 pp. (Japanese). CODEN: JKXXAF.
APPLICATION: JP 1993-81866 19930408.

GI

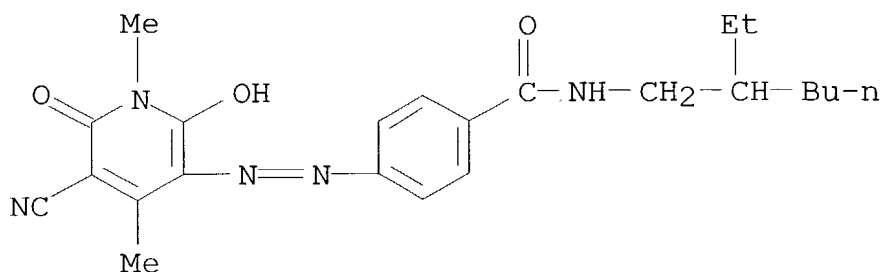


AB A dye mixt., incorporated into a polymer sheet, suited for use as a
light-cutting filter, esp. a neutral d. filter, comprises ≥ 6
dyes selected from 13 classes of dyes, i.e. a yellow dye I (X1, X2,
and X3 = H, alkyl, halo).

IT **30449-81-1**
(dyes-contg. sheet for d. filter)

RN 30449-81-1 ZCAPLUS

CN Benzamide, 4-[(5-cyano-1,6-dihydro-2-hydroxy-1,4-dimethyl-6-oxo-3-
pyridinyl)azo]-N-(2-ethylhexyl)- (9CI) (CA INDEX NAME)

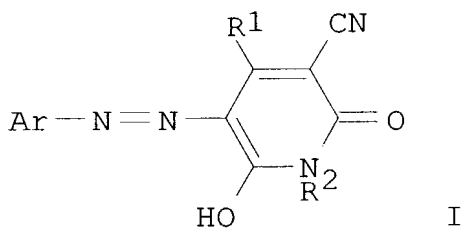


IT 30449-81-1

(dyes-contg. sheet for d. filter)

L21 ANSWER 11 OF 34 ZCAPLUS COPYRIGHT 2004 ACS on STN
 1994:591292 Document No. 121:191292 Postcoloring type pyridone yellow
 dye and electrophotographic developer color toner. Koshida,
 Hitoshi; Aida, Isamu; Tanaka, Hironori; Matsuzaki, Yoriaki; Takuma,
 Hirosuke (Mitsui Toatsu Chemicals, Japan). Jpn. Kokai Tokkyo Koho
 JP 06059510 A2 19940304 Heisei, 9 pp. (Japanese). CODEN: JKXXAF.
 APPLICATION: JP 1992-212618 19920810.

GI



I

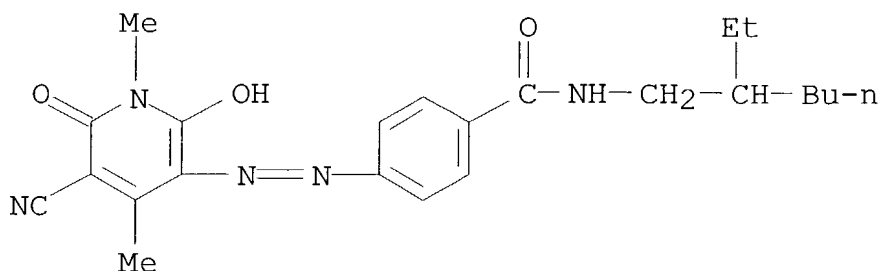
AB The dye comprises a pyridone dye I [R1 = H, alkyl; R2 = H,
 (substituted) alkyl, cycloalkyl, allyl, (substituted) phenyl; Ar =
 (substituted) phenyl]. The toner contains the dye. The toner gives
 fog-prevented and light-resistant yellow image.

IT 30449-81-1

(electrophotog. developer yellow toner contg.)

RN 30449-81-1 ZCAPLUS

CN Benzamide, 4-[(5-cyano-1,6-dihydro-2-hydroxy-1,4-dimethyl-6-oxo-3-
 pyridinyl)azo]-N-(2-ethylhexyl)- (9CI) (CA INDEX NAME)



IT 30449-81-1

(electrophotog. developer yellow toner contg.)

L21 ANSWER 12 OF 34 ZCAPLUS COPYRIGHT 2004 ACS on STN
 1994:567054 Document No. 121:167054 Material and method for thermal transfer recording. Takeyama, Toshihisa; Nakayama, Noritaka; Komamura, Tawara; Watanabe, Hiroshi (Konishiroku Photo Ind, Japan). Jpn. Kokai Tokkyo Koho JP 05301469 A2 19931116 Heisei, 17 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1992-107776 19920427.

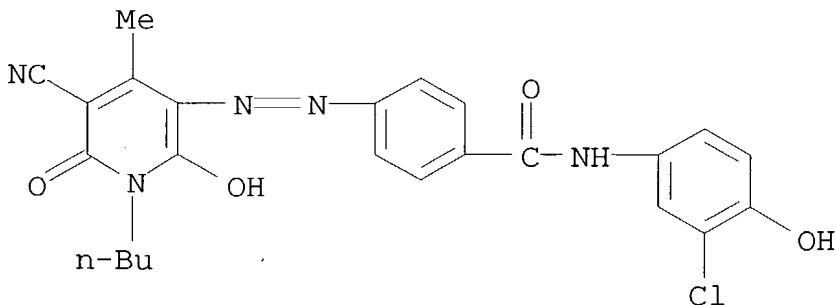
AB In a thermal transfer recording system in which a thermal transfer recording material employing an ink layer contg. a phenolic dye is used in conjunction with a dye-receptor material, the latter employs a dye receptor layer contg. a basic compd. and(or) a mordant and a bisphenol-based resin. The recording system yields light- and heat-fast transferred images.

IT 157187-73-0

(heat-diffusible dye, thermal transfer recording medium contg.)

RN 157187-73-0 ZCAPLUS

CN Benzamide, 4-[(1-butyl-5-cyano-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]-N-(3-chloro-4-hydroxyphenyl)- (9CI) (CA INDEX NAME)



IT 157187-73-0

(heat-diffusible dye, thermal transfer recording medium contg.)

L21 ANSWER 13 OF 34 ZCAPLUS COPYRIGHT 2004 ACS on STN
 1994:41990 Document No. 120:41990 Dyes for color filters,
 photosensitive resist resin compositions containing the same, and
 color filters. Karasawa, Akio; Itoh, Hisato; Sugimoto, Kenichi
 (Mitsui Toatsu Chemicals, Inc., Japan). Eur. Pat. Appl. EP 546856
 A2 19930616, 38 pp. DESIGNATED STATES: R: DE, FR, GB, NL.
 (English). CODEN: EPXXDW. APPLICATION: EP 1992-311343 19921211.
 PRIORITY: JP 1991-328474 19911212.

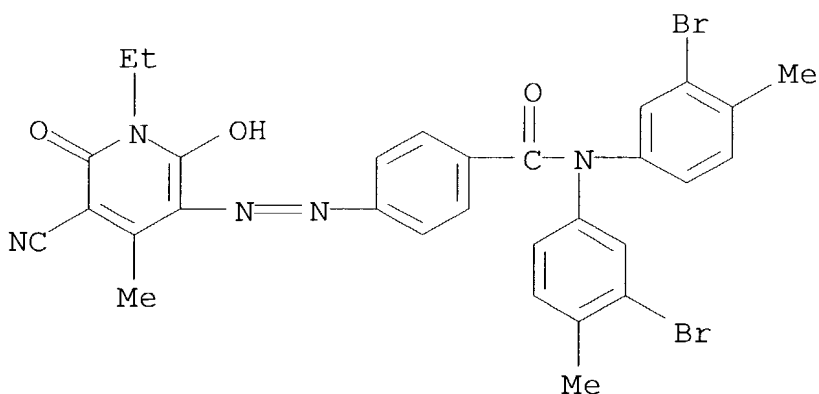
AB Dyes suitable for use in the fabrication of color filters contain
 one or more photopolymerizable substituents which may preferably be
 represented by the following formula: D-(A-Yn1)n2 wherein D
 represents a chromophoric nucleus, A denotes a connecting group, Y
 means the photopolymerizable group, n1 is 1-10000, and n2 stands for
 an integer of 1-10. Also described are photosensitive resist resin
 compns. contg. the dyes as well as color filters fabricated by
 curing the photosensitive resist resin compns.

IT 151321-73-2

(photopolymerizable dye)

RN 151321-73-2 ZCAPLUS

CN Benzamide, N,N-bis(3-bromo-4-methylphenyl)-4-[(5-cyano-1-ethyl-1,6-
 dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]- (9CI) (CA INDEX
 NAME)



IT 151321-73-2

(photopolymerizable dye)

L21 ANSWER 14 OF 34 ZCAPLUS COPYRIGHT 2004 ACS on STN
 1991:76475 Document No. 114:76475 Bioconcentration factors and lipid
 solubility. Banerjee, Sujit; Baughman, George L. (Res. Serv. Div.,
 Inst. Pap. Sci. Technol., Atlanta, GA, 30318, USA). Environmental
 Science and Technology, 25(3), 536-9 (English) 1991. CODEN: ESTHAG.
 ISSN: 0013-936X.

AB The log-log relationship between bioconc. and hydrophobicity breaks

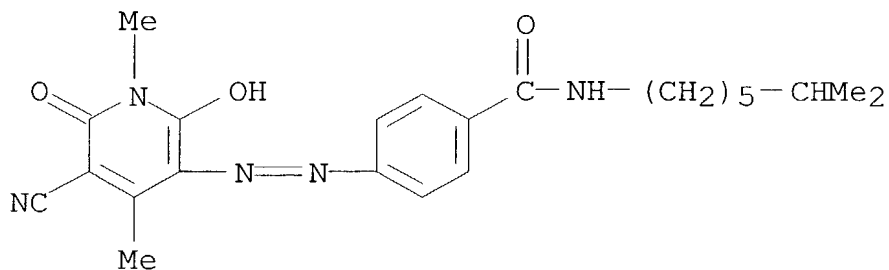
down for several medium- and high-mol.-wt. solutes that bioconc. either to a small extent or not at all. Much of the failure is attributed to the relatively low soly. of these compds. in lipid. Inclusion of a term in octanol soly. (in place of lipid soly., which is generally unavailable) considerably improves the quality of the relationship ($r = 0.95$). It is speculated that the octanol soly. term compensates for the relatively low soly. of large compds. in lipid.

IT 131044-52-5

(bioconcn. of, in fish, lipid soly. in relation to)

RN 131044-52-5 ZCAPLUS

CN Benzamide, 4-[(5-cyano-1,6-dihydro-2-hydroxy-1,4-dimethyl-6-oxo-3-pyridinyl)azo]-N-(6-methylheptyl)- (9CI) (CA INDEX NAME)



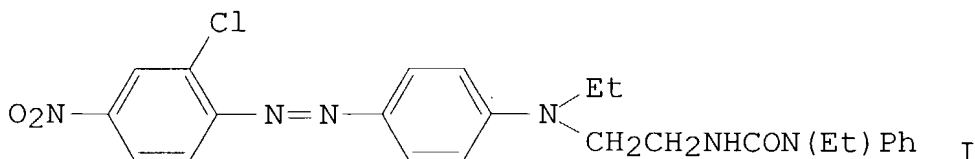
IT 131044-52-5

(bioconcn. of, in fish, lipid soly. in relation to)

L21 ANSWER 15 OF 34 ZCAPLUS COPYRIGHT 2004 ACS on STN

1990:442462 Document No. 113:42462 Disperse azo dyes for hydrophobic fibers and their preparation. Liechti, Peter; Emmenegger, Karl; Trottmann, Martin (Ciba-Geigy A.-G., Switz.). Eur. Pat. Appl. EP 337948 A1 19891018, 43 pp. DESIGNATED STATES: R: BE, CH, DE, ES, FR, GB, IT, LI. (German). CODEN: EPXXDW. APPLICATION: EP 1989-810260 19890405. PRIORITY: CH 1988-1381 19880414.

GI



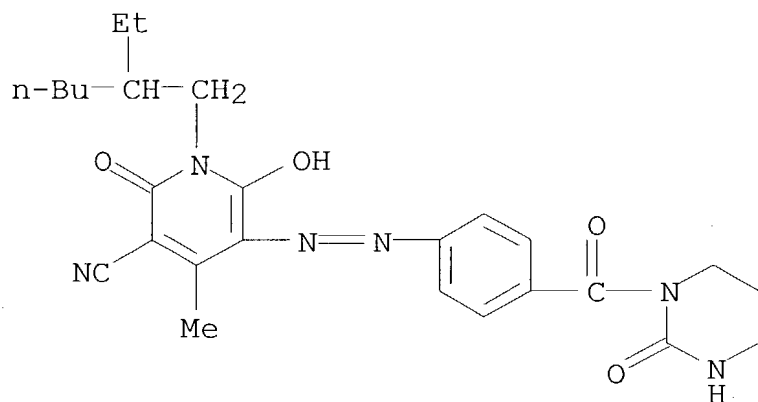
AB Hydrophobic azo dyes, useful for dyeing or printing of hydrophobic (e.g., polyester) fibers, are prepd. and have thermally cleavable groups. Thus, chloroethyl isocyanate was condensed with PhNH₂, the intermediate condensed with PhNH₂, and the urea intermediate coupled with diazotized 2-chloro-4-nitroaniline, producing I, m.p. 190-192°, which dyed polyester fibers in a fast red shade.

IT 126260-99-9P

(manuf. of, as yellow disperse dye for polyester fibers)

RN 126260-99-9 ZCAPLUS

CN 2(1H)-Pyrimidinone, 1-[4-[[5-cyano-1-(2-ethylhexyl)-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl]azo]benzoyl]tetrahydro- (9CI)
(CA INDEX NAME)



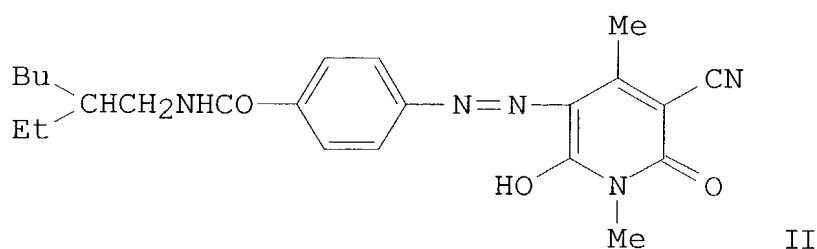
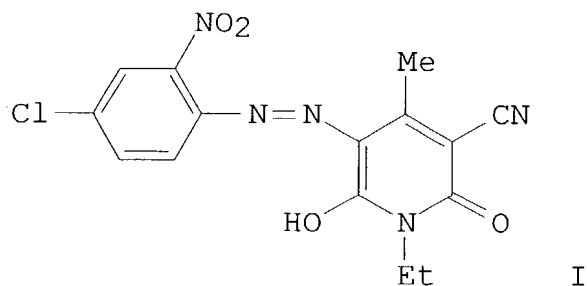
IT 126260-99-9P

(manuf. of, as yellow disperse dye for polyester fibers)

L21 ANSWER 16 OF 34 ZCAPLUS COPYRIGHT 2004 ACS on STN

1989:233110 Document No. 110:233110 Yellow azo dyes for polyester textiles. Prikryl, Josef; Pipal, Jiri; Ruzicka, Karel; Ruzicka, Jaroslav (Czech.). Czech. CS 254574 B1 19880915, 3 pp. (Czech). CODEN: CZXXA9. APPLICATION: CS 1986-151 19860108.

GI



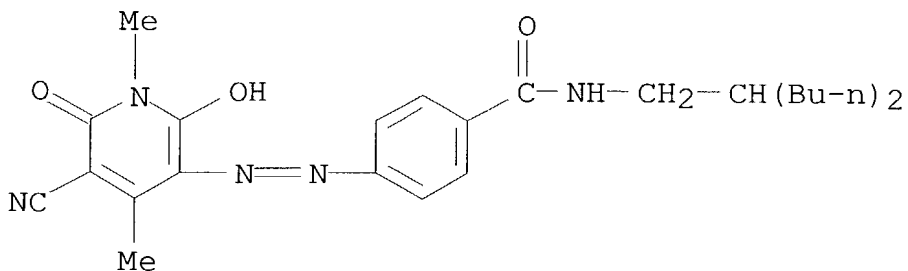
AB Polyester textiles are dyed rapidly at high temps. with good leveling and dye utilization by baths contg. 25-50% 1:1-1.3 mixt. of the yellow dyes I and II and 75-50% dispersing agents (lignosulfonates, Tamol, nonionic). A suitable compn. was prepd. by milling an emulsion of I 1, II 1.14, lignosulfonate 1, Tamol 2.5, and PhC12H25 0.1 part and spray drying.

IT **120875-43-6**

(in yellow dyeing of polyester fibers)

RN 120875-43-6 ZCAPLUS

CN Benzamide, N-(2-butylhexyl)-4-[(5-cyano-1,6-dihydro-2-hydroxy-1,4-dimethyl-6-oxo-3-pyridinyl)azo]- (9CI) (CA INDEX NAME)



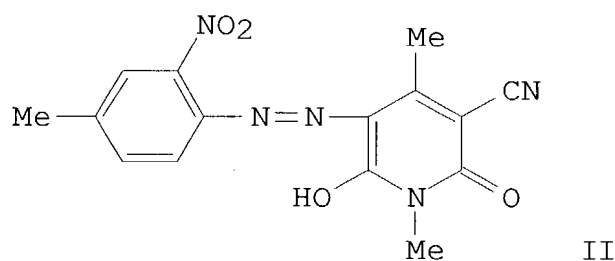
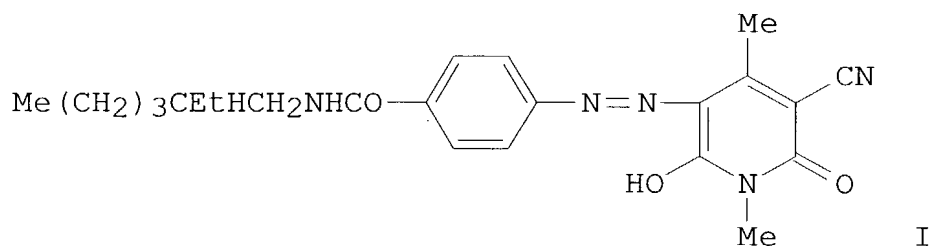
IT **120875-43-6**

(in yellow dyeing of polyester fibers)

L21 ANSWER 17 OF 34 ZCAPLUS COPYRIGHT 2004 ACS on STN

1989:156037 Document No. 110:156037 Synergistic yellow azo dye preparation for level exhaust dyeing of synthetic textiles. Prikryl, Josef; Pipal, Jiri; Ruzicka, Karel; Vyskocil, Frantisek (Czech.). Czech. CS 253235 B1 19880615, 3 pp. (Czech). CODEN: CZXXA9. APPLICATION: CS 1986-241 19860110.

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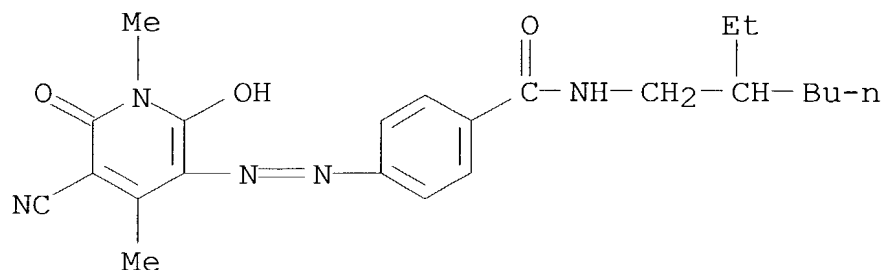
AB Fast and level yellow shades are obtained on textiles contg. polyester fibers in rapid dyeing processes with a prepn. consisting of 25-50% of a 0.9-1.5:1 mixt. of I-II azo dyes and 50-75% dispersing agents. The synergistic mixt. of these dyes has a much higher exhaust than individual I or II. Thus, I 1, II 1, and lignosulfonate dispersing agent one part were ground in a bead mill, 2.5 parts Tamol dispersing agent and 0.11 part dodecylbenzene (antifoaming agent) were added, and the prepn. was spray dried and applied in a bath adjusted to pH 4.5 with AcOH at 60-130° (heating rate 2.5 K/min) giving level yellow shades on a polyester fabric with practically complete I and II exhaustion.

IT **30449-81-1**

(dye mixts. contg., for level exhaust dyeing of synthetic textiles)

RN 30449-81-1 ZCAPLUS

CN Benzamide, 4-[(5-cyano-1,6-dihydro-2-hydroxy-1,4-dimethyl-6-oxo-3-pyridinyl)azo]-N-(2-ethylhexyl)- (9CI) (CA INDEX NAME)



IT 30449-81-1

(dye mixts. contg., for level exhaust dyeing of synthetic textiles)

L21 ANSWER 18 OF 34 ZCAPLUS COPYRIGHT 2004 ACS on STN

1989:34913 Document No. 110:34913 Bioaccumulation of dyestuffs and organic pigments in fish. Relationships to hydrophobicity and steric factors. Anliker, R.; Moser, P.; Poppinger, D. (Ecol. Toxicol. Assoc. Dyest. Manuf. Ind., Basel, CH-4005, Switz.). Chemosphere, Volume Date 1987, 17(8), 1631-44 (English) 1988. CODEN: CMSHAF. ISSN: 0045-6535.

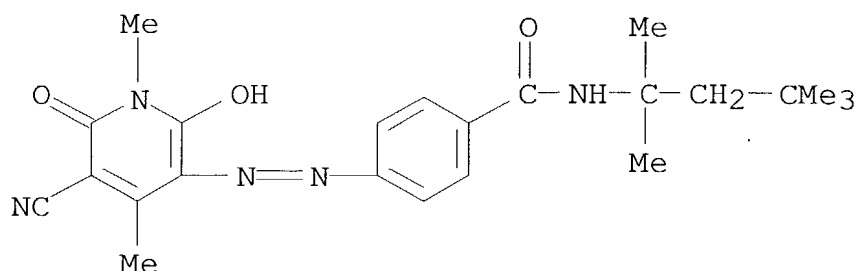
AB For 23 disperse dyes, 2 org. pigments and a fluorescent whitening agent, for which exptl. bioaccumulation factors in fish are known, log Pow values (partition coeff. octanol/water) were calcd. and detd., if possible. For comparison, 16 halogenated arom. hydrocarbons are included. Two parameters were chosen to parameterize the size of the mols.: the mol. wt. and, following a suggestion by A. Oppenhuizen et al. (1985), the second largest van der Waals diam. of the mols., measured on conformations optimized by force field calcns. None of the disperse dyes, even the highly lipophilic ones with log Pow > 3.0, accumulate in fish to a significant degree. It is argued that their large mol. size effectively prevents their permeation through biol. membranes and thus their uptake during the time of exposure. For screening org. colorants for their bioaccumulation potential a decision scheme is proposed using as parameters the soly. in water and in octanol, the partition coeff. octanol/water, and the mol. wt. and size. This scheme suggests in its last step that there should be no need to perform a fish bioaccumulation test provided the org. colorants have a mol. wt. of more than 450 Daltons and a second largest cross section of over 1.05 nm.

IT 118038-98-5

(bioaccumulation of, in fish, hydrophobicity and steric factors effect on)

RN 118038-98-5 ZCAPLUS

CN Benzamide, 4-[(5-cyano-1,6-dihydro-2-hydroxy-1,4-dimethyl-6-oxo-3-pyridinyl)azo]-N-(1,1,3,3-tetramethylbutyl)- (9CI) (CA INDEX NAME)



IT **118038-98-5**

(bioaccumulation of, in fish, hydrophobicity and steric factors effect on)

L21 ANSWER 19 OF 34 ZCAPLUS COPYRIGHT 2004 ACS on STN

1988:215834 Document No. 108:215834 A novel method for measuring membrane-water partition coefficients of hydrophobic organic chemicals: comparison with 1-octanol-water partitioning. Gobas, Frank A. P. C.; Lahittete, Jean M.; Garofalo, Gil; Shiu, Wan Ying; Mackay, Donald (Dep. Chem. Eng. Appl. Chem., Univ. Toronto, Toronto, ON, M5S 1A4, Can.). Journal of Pharmaceutical Sciences, 77(3), 265-72 (English) 1988. CODEN: JPMSAE. ISSN: 0022-3549.

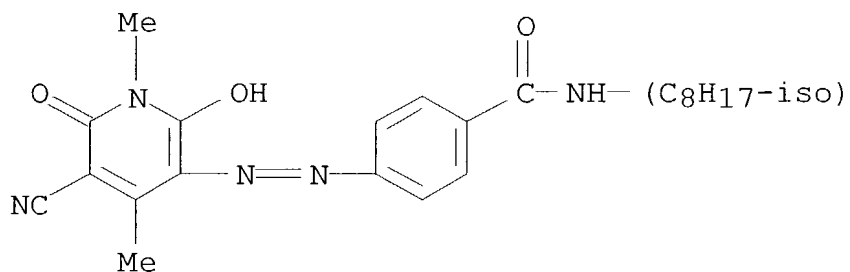
AB Partition coeffs. for 54 halogenated arom. hydrocarbons and 13 other compds. of varying molar vol. were obtained by a new method in a system using water and dimyritoyl L- α -phosphatidylcholine (DMPC) membrane vesicles and hexane and octanol as org. solvents. The results indicate that hexane and octanol are satisfactory surrogates for DMPC membranes for chem. with octanol-water partition coeffs. (log Kow) <5.5 or molar volumes <230 cm³/mol. Chem. with higher log Kow or molar volume values display marked differences in membrane-water, octanol-water, and hexane-water partitioning. Implications for lipid- and organism-water partitioning of hydrophobic chem. are discussed. The model membranes used in this study resemble the partitioning characteristics of membranes or lipid tissues in the body; membrane-water partition coeffs. may be a more reliable predictor and basis for QSARs than Kow, esp. for high molar vol. chem.

IT **104418-53-3**

(phospholipid membrane- and hexane- and octanol-water partition of, methods for detn. of)

RN 104418-53-3 ZCAPLUS

CN Benzamide, 4-[(5-cyano-1,6-dihydro-2-hydroxy-1,4-dimethyl-6-oxo-3-pyridinyl)azo]-N-isooctyl- (9CI) (CA INDEX NAME)

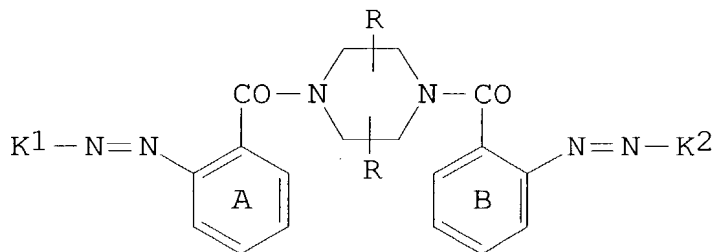


IT 104418-53-3

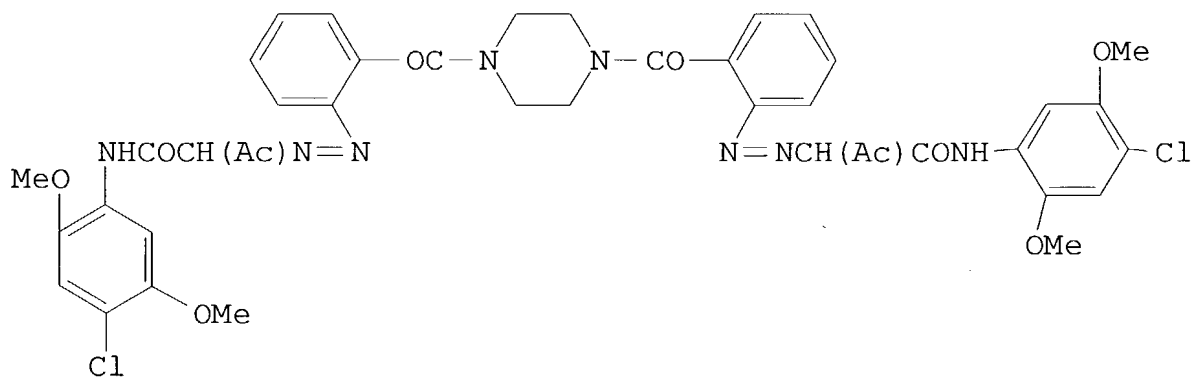
(phospholipid membrane- and hexane- and octanol-water partition
of, methods for detn. of)

L21 ANSWER 20 OF 34 ZCAPLUS COPYRIGHT 2004 ACS on STN
1987:479476 Document No. 107:79476 Piperazine moiety-containing disazo
pigments. Colberg, Horst; Hahn, Erwin (BASF A.-G., Fed. Rep. Ger.).
Ger. Offen. DE 3536196 A1 19870416, 24 pp. (German). CODEN:
GWXXBX. APPLICATION: DE 1985-3536196 19851010.

GI



I



II

AB The sulfonic acid-free title compds. I [K1, K2 = coupling component; R = H, C1-4 alkyl; rings A and B may be mono- or multisubstituted with F, Cl, Br, NO₂, Me, CF₃, Et, Ac, Bz, carboxylic ester, (un)substituted carbamoyl or sulfamoyl, aryloxysulfonyl, C1-4 alkylsulfonyl, (un)substituted PhSO₂, CN, acylamino, or a condensed ring], useful as pigments in printing inks, lacquers, or plastics, are prepd. N,N'-Bis(2-aminobenzoyl)piperazine was tetrazotized and coupled with N-(2,5-dimethoxy-4-chlorophenyl)acetoacetamide forming II, 8 parts of which were mixed with 40 parts of a phenol/formaldehyde-modified rosin and 55-60 parts PhMe, forming a deep-yellow printing ink with good color strength.

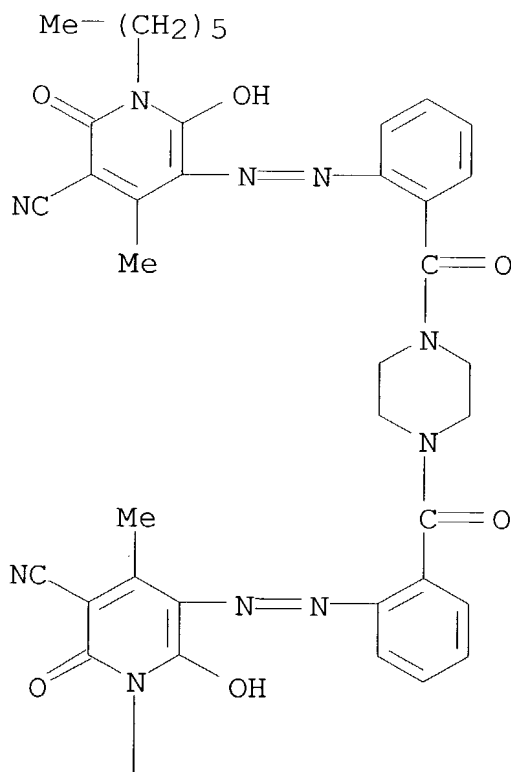
IT 109736-02-9P 109736-03-0P

(manuf. of, as pigment for lacquers and plastics and printing inks)

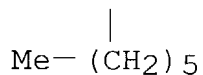
RN 109736-02-9 ZCAPLUS

CN Piperazine, 1,4-bis[2-[(5-cyano-1-hexyl-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]benzoyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

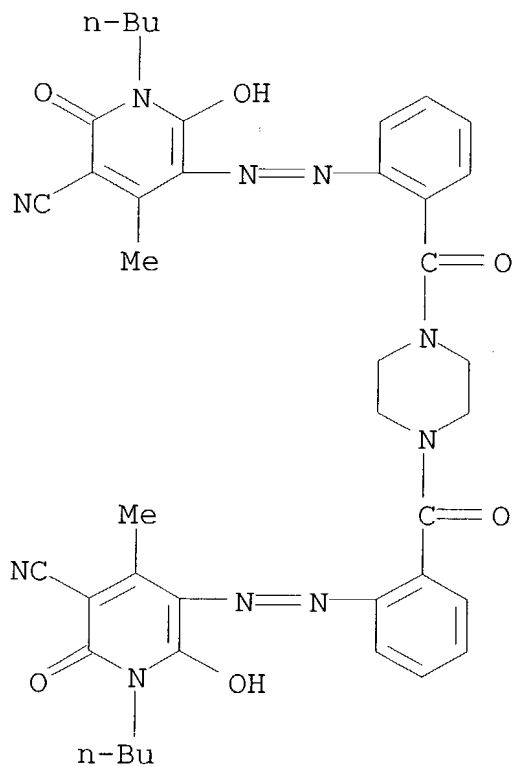


PAGE 2-A



RN 109736-03-0 ZCAPLUS

CN Piperazine, 1,4-bis[2-[(1-butyl-5-cyano-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]benzoyl]- (9CI) (CA INDEX NAME)

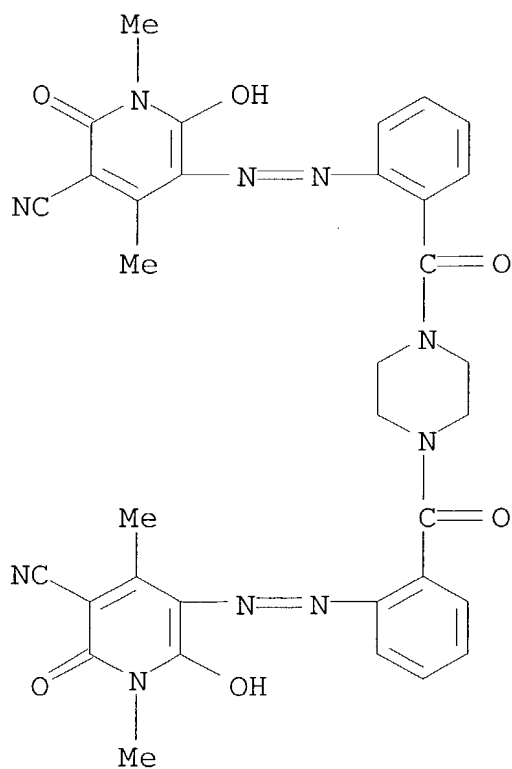


IT 109736-04-1P

(manuf. of, as yellow pigment for plastics)

RN 109736-04-1 ZCAPLUS

CN Piperazine, 1,4-bis[2-[(5-cyano-1,6-dihydro-2-hydroxy-1,4-dimethyl-6-oxo-3-pyridinyl)azo]benzoyl]- (9CI) (CA INDEX NAME)

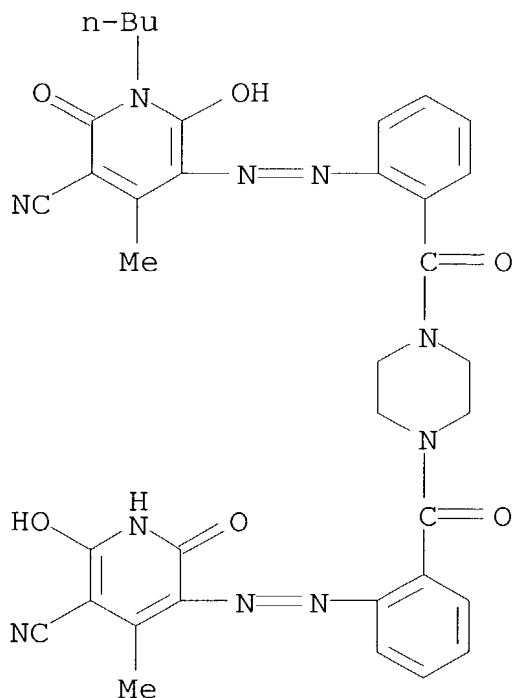


IT 109708-23-8P

(manuf. of, for pigments)

RN 109708-23-8 ZCAPLUS

CN Piperazine, 1-[2-[(1-butyl-5-cyano-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]benzoyl]-4-[2-[(3-cyano-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]benzoyl]- (9CI) (CA INDEX NAME)



IT 109736-02-9P 109736-03-0P

(manuf. of, as pigment for lacquers and plastics and printing inks)

IT 109736-04-1P

(manuf. of, as yellow pigment for plastics)

IT 109708-23-8P

(manuf. of, for pigments)

L21 ANSWER 21 OF 34 ZCAPLUS COPYRIGHT 2004 ACS on STN

1987:190533 Document No. 106:190533 The limits of bioaccumulation of organic pigments in fish: their relation to the partition coefficient and the solubility in water and octanol. Anliker, R.; Moser, P. (Ecol. Toxicol. Assoc. Dyestuffs Manufact. Ind., Basle, CH-4005, Switz.). Ecotoxicology and Environmental Safety, 13(1), 43-52 (English) 1987. CODEN: EESADV. ISSN: 0147-6513.

AB A reliable exptl. detn. of the partition coeff. Pow of org. pigments is met with serious difficulties due to the extremely low water solubilities of these compds. Therefore, the Pow values and the water solubilities were calcd. for 11 typical org. pigments and some disperse dyes as well. The calcd. Pow values of the pigments were very high predicting bioaccumulation factors (BF) several orders of magnitude >100. Based on recent studies confirming that n-octanol simulates lipids in their solubilizing effect on org. chem., the solubilities of these org. pigments in n-octanol were measured to

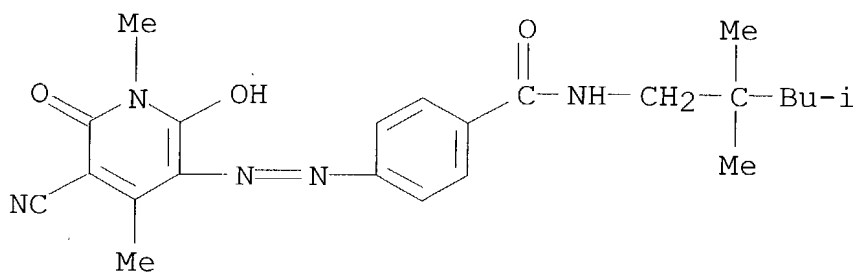
est. their potential for lipid storage. The very low soly. values indicate that in spite of the very high predicted BF such pigments cannot build up concns. in lipids (hence in fish) which could be of concern considering their generally low toxicity and the extremely small amts. entering the environment. Therefore, there should be no need to perform a fish bioaccumulation test for assessing the bioaccumulation potential of such compds., provided they show comparable soly. characteristics as the pigments investigated in this study.

IT 108043-87-4

(partition coeff. and soly. of, fish accumulation and structure in relation to)

RN 108043-87-4 ZCAPLUS

CN Benzamide, 4-[(5-cyano-1,6-dihydro-2-hydroxy-1,4-dimethyl-6-oxo-3-pyridinyl)azo]-N-(2,2,4-trimethylpentyl)- (9CI) (CA INDEX NAME)



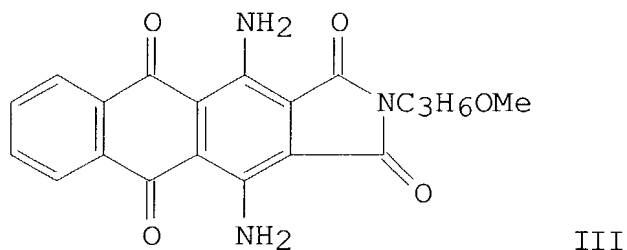
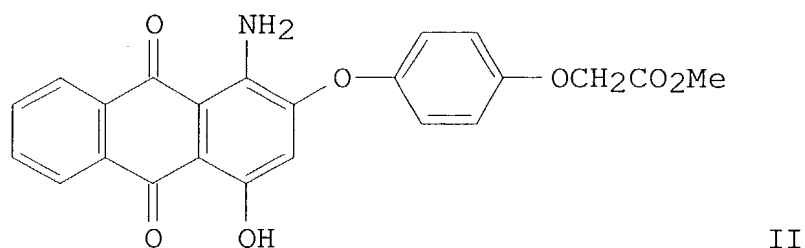
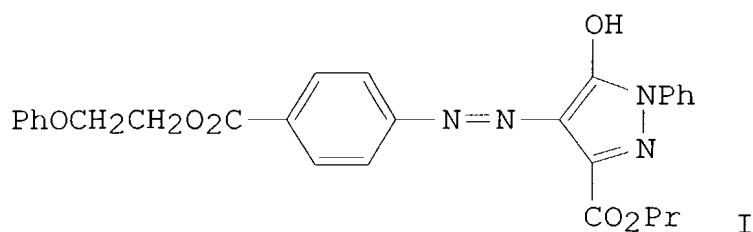
IT 108043-87-4

(partition coeff. and soly. of, fish accumulation and structure in relation to)

L21 ANSWER 22 OF 34 ZCAPLUS COPYRIGHT 2004 ACS on STN

1986:554610 Document No. 105:154610 Alkali-discharge-resist dyeing compositions for polyester fibers. Himeno, Kiyoshi; Fujita, Takashi; Yoshihara, Junji; Sanaki, Ken (Mitsubishi Chemical Industries Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 61041382 A2 19860227 Showa, 19 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1984-157045 19840727.

GI



AB The title compns. producing multicolor dyeings with sharp pattern borders comprise an alkali-decomposable disperse dye compn., a saponifiable disperse dye compn. contg. an alkali, and an alkali-resistant disperse dye compn. contg. an alkali. Thus, alkali-decomposable yellow I 1.0, naphthalenesulfonic acid-HCHO condensate 2.0, and higher alc. sulfate 1.0 g were dispersed in 20 mL water, and this dispersion 20, 5% aq. Na alginate 55, citric acid 1, and water 24 g were mixed to give dispersion A. A dispersion was prepd. similarly using saponifiable red II in place of I, and the resulting dispersion 5, CM-cellulose thickener 30, Na2CO3 3, a polyethylene glycol-based solubilizer 10, a carrier 2, and water 50 g were mixed to give dispersion B. A dispersion was prepd. similarly using alkali-resistant turquoise III in place of I, and the resulting dispersion 5, CM-cellulose thickener 30, Na2CO3 15, solubilizer 15, carrier 2, and water 33 g were mixed to give dispersion C. A polyester fabric was impregnated with the dispersion A, dried at 100° for 2 min, printed in a longitudinal stripe pattern with the dispersion C, dried at 100°, printed in a transverse stripe pattern with the dispersion B, dried at 100°, and steamed at 175° for 7

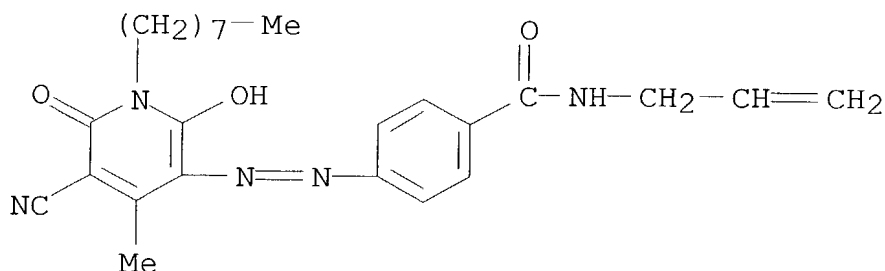
min, followed by usual washing, redn. clearing, and drying to give a light- and wetfast dyeing with a grid pattern of turquoise longitudinal stripes and red transverse stripes in yellow background. The stripe overlap area was red-free turquoise, and the border between stripes was very sharp without color bleeding.

IT 71599-85-4 104418-53-3 104495-74-1
104495-75-2 104495-76-3

(dye, in alkali-discharge-resist dye compns., for dyeing polyester fabrics in multicolor patterns)

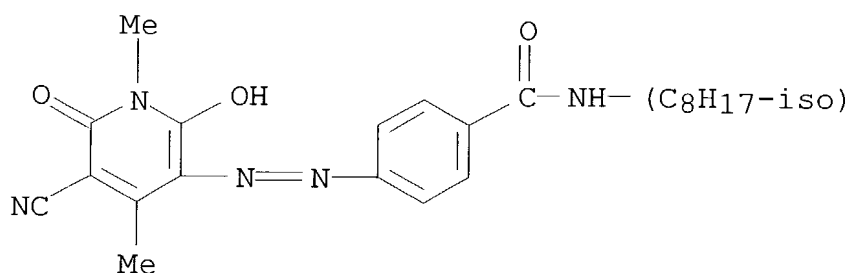
RN 71599-85-4 ZCAPLUS

CN Benzamide, 4-[(5-cyano-1,6-dihydro-2-hydroxy-4-methyl-1-octyl-6-oxo-3-pyridinyl)azo]-N-2-propenyl- (9CI) (CA INDEX NAME)



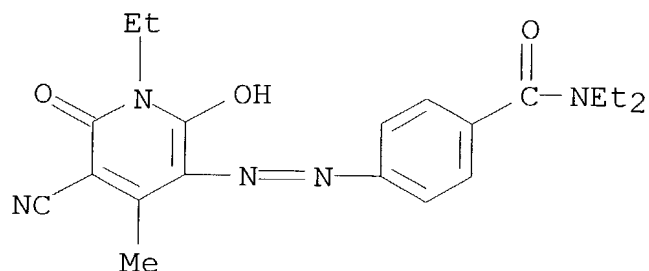
RN 104418-53-3 ZCAPLUS

CN Benzamide, 4-[(5-cyano-1,6-dihydro-2-hydroxy-1,4-dimethyl-6-oxo-3-pyridinyl)azo]-N-isooctyl- (9CI) (CA INDEX NAME)



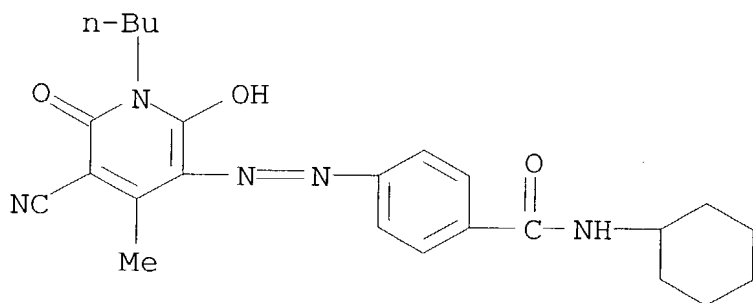
RN 104495-74-1 ZCAPLUS

CN Benzamide, 4-[(5-cyano-1-ethyl-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]-N,N-diethyl- (9CI) (CA INDEX NAME)



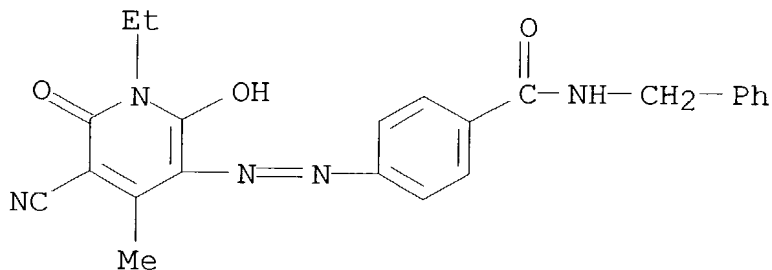
RN 104495-75-2 ZCAPLUS

CN Benzamide, 4-[(1-butyl-5-cyano-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]-N-cyclohexyl- (9CI) (CA INDEX NAME)



RN 104495-76-3 ZCAPLUS

CN Benzamide, 4-[(5-cyano-1-ethyl-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]-N-(phenylmethyl)- (9CI) (CA INDEX NAME)

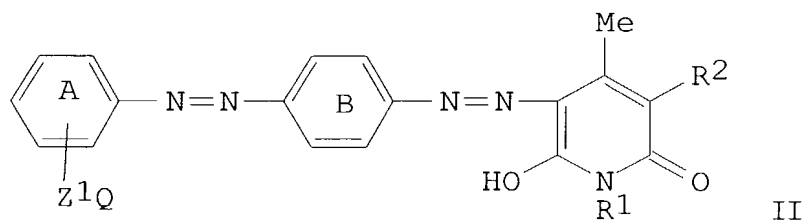
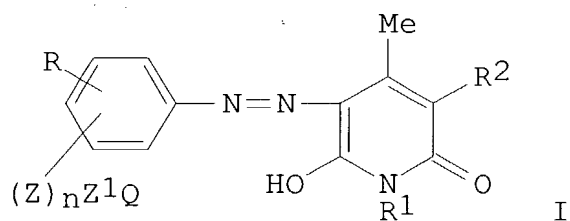
IT 71599-85-4 104418-53-3 104495-74-1
104495-75-2 104495-76-3

(dye, in alkali-discharge-resist dye compns., for dyeing polyester fabrics in multicolor patterns)

L21 ANSWER 23 OF 34 ZCAPLUS COPYRIGHT 2004 ACS on STN

1985:524989 Document No. 103:124989 Reactive pyridinone azo dyes.
 Niwa, Toshio; Himeno, Kiyoshi; Hihara, Toshio; Shimizu, Yukiharu
 (Mitsubishi Chemical Industries Co., Ltd., Japan). Eur. Pat. Appl.
 EP 142863 A2 19850529, 114 pp. DESIGNATED STATES: R: CH, DE, FR,
 GB, LI. (English). CODEN: EPXXDW. APPLICATION: EP 1984-114042
 19841120. PRIORITY: JP 1983-220301 19831122; JP 1984-108949
 19840529.

GI



AB Reactive disperse dyes with good lightfastness are represented by general structures I and II, where ring A is optionally substituted by lower alkyl, lower alkoxy, CF₃, or halogen; ring B is optionally substituted by lower alkyl, lower alkoxy, halogen, or AcNH; Z = CH₂, CH₂CH₂, OCH₂CH₂, CONHCH₂CH₂, SO₂NHCH₂CH₂, or SO₂CH₂CH₂; n = 0 or 1; Z₁ = O or S; Q = 6-membered N-contg. heterocyclic ring contg. >1 reactive halogen atom; R = H, lower alkyl, lower alkoxy, NO₂, CF₃, or halogen; R₁ = alkyl, aryl optionally substituted by lower alkoxy or phenox; and R₂ = CN or CONH₂. I and II are yellow reddish orange dyes for cellulose, polyamide, cellulose-polyamide, cellulose-polyester, and polyester-wool textiles. Thus, polyester-cotton was print-dyed a light- and washfast yellow shade by I [R = H, R₁ = n-C₈H₁₇, R₂ = CN, n = 0, Z₁ = O, Q = 4-(dibutylamino)-6-fluoro-s-triazin-2-yl (m-position)] [98313-70-3], prepd. by reaction of the corresponding m-hydroxyphenylazo compd. [98313-71-4] with 2-(dibutylamino)-4,6-difluoro-s-triazine [84875-65-0] and applied in the presence of a swelling agent. A large no. of other I (and II) are reported.

IT 98233-36-4 98233-37-5 98233-44-4

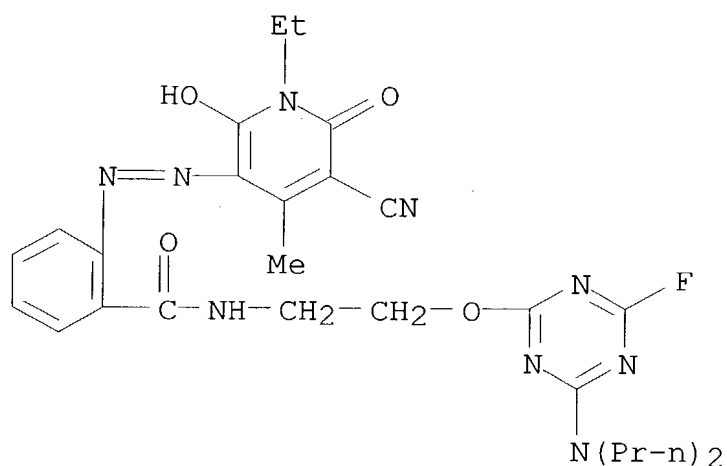
98233-45-5 98233-47-7 98233-48-8

98233-73-9 98253-43-1

(reactive disperse dye, for polyester-cotton fabric)

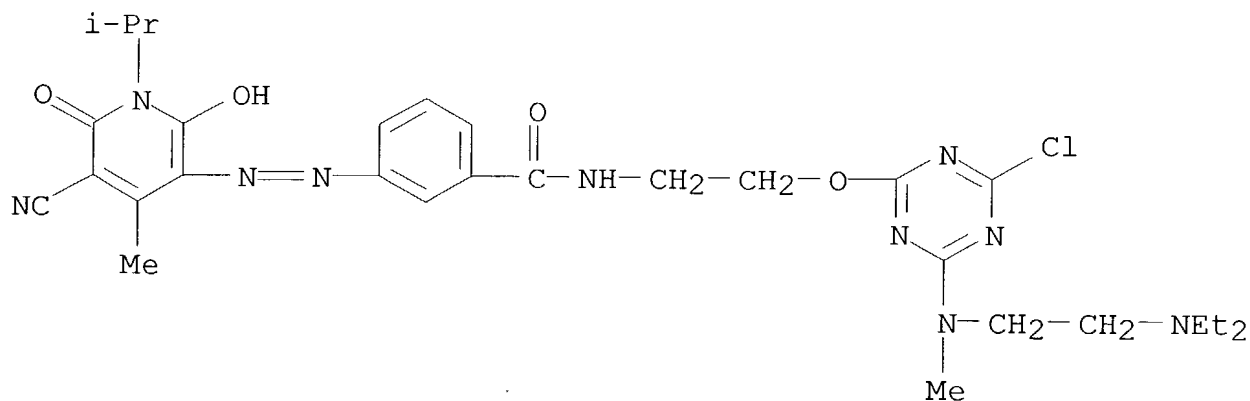
RN 98233-36-4 ZCAPLUS

CN Benzamide, 2-[(5-cyano-1-ethyl-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]-N-[2-[[4-(dipropylamino)-6-fluoro-1,3,5-triazin-2-yl]oxy]ethyl]- (9CI) (CA INDEX NAME)



RN 98233-37-5 ZCAPLUS

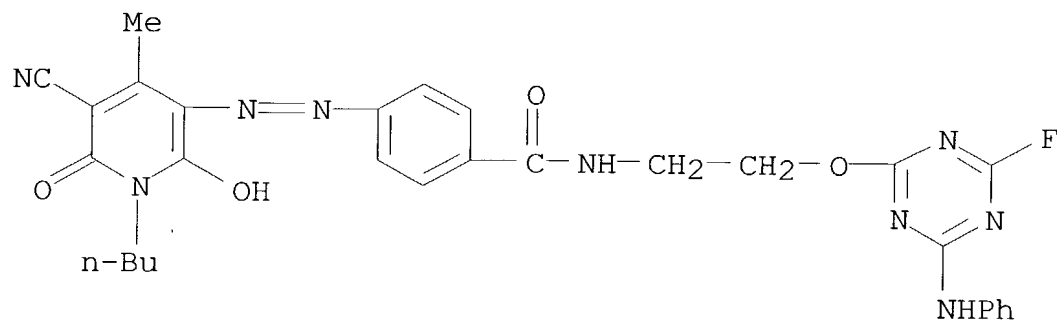
CN Benzamide, N-[2-[[4-chloro-6-[[2-(diethylamino)ethyl]methylamino]-1,3,5-triazin-2-yl]oxy]ethyl]-3-[[5-cyano-1,6-dihydro-2-hydroxy-4-methyl-1-(1-methylethyl)-6-oxo-3-pyridinyl]azo]- (9CI) (CA INDEX NAME)



RN 98233-44-4 ZCAPLUS

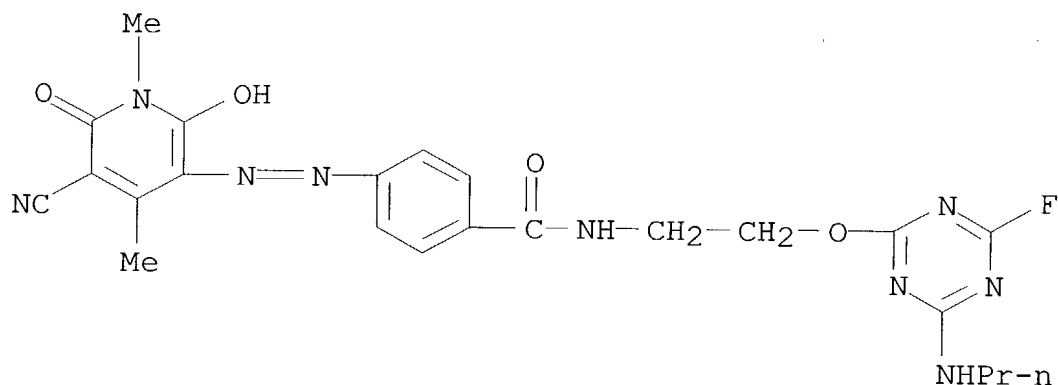
CN Benzamide, 4-[(1-butyl-5-cyano-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-

3-pyridinyl)azo]-N-[2-[[4-fluoro-6-(phenylamino)-1,3,5-triazin-2-yl]oxy]ethyl]- (9CI) (CA INDEX NAME)



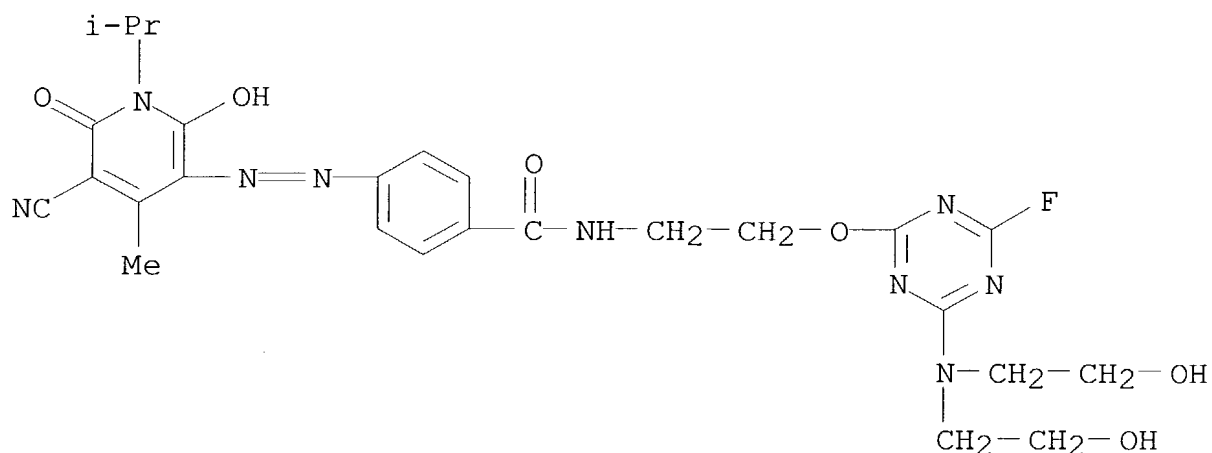
RN 98233-45-5 ZCAPLUS

CN Benzamide, 4-[(5-cyano-1,6-dihydro-2-hydroxy-1,4-dimethyl-6-oxo-3-pyridinyl)azo]-N-[2-[[4-fluoro-6-(propylamino)-1,3,5-triazin-2-yl]oxy]ethyl]- (9CI) (CA INDEX NAME)



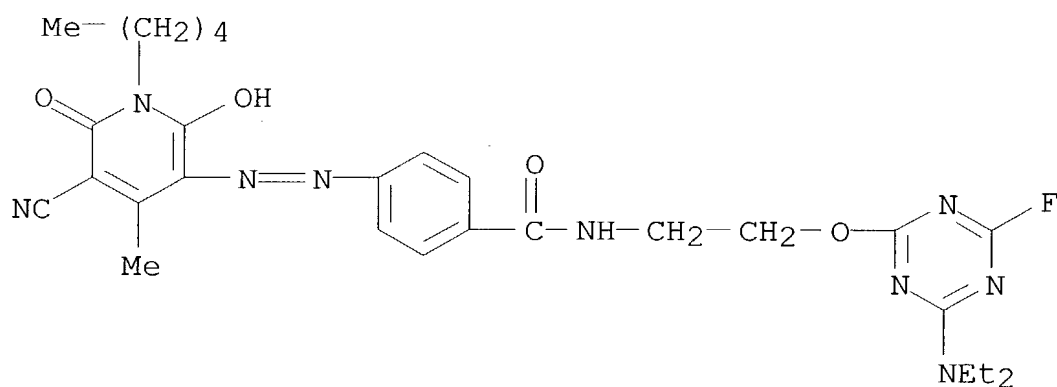
RN 98233-47-7 ZCAPLUS

CN Benzamide, N-[2-[[4-[bis(2-hydroxyethyl)amino]-6-fluoro-1,3,5-triazin-2-yl]oxy]ethyl]-4-[[5-cyano-1,6-dihydro-2-hydroxy-4-methyl-1-(1-methylethyl)-6-oxo-3-pyridinyl]azo]- (9CI) (CA INDEX NAME)



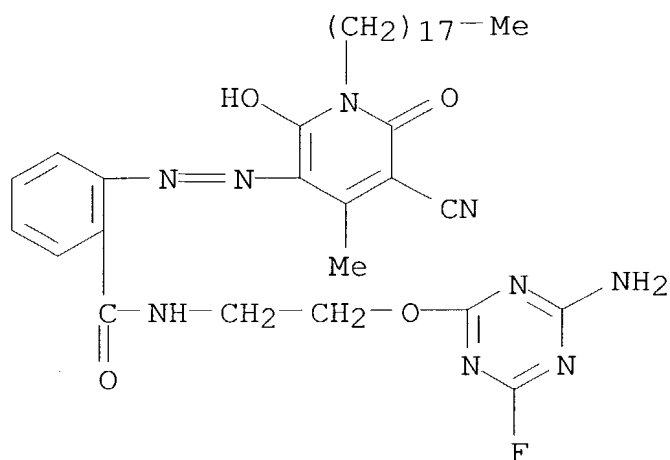
RN 98233-48-8 ZCAPLUS

CN Benzamide, 4-[(5-cyano-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-1-pentyl-3-pyridinyl)azo]-N-[2-[[4-(diethylamino)-6-fluoro-1,3,5-triazin-2-yl]oxy]ethyl]- (9CI) (CA INDEX NAME)



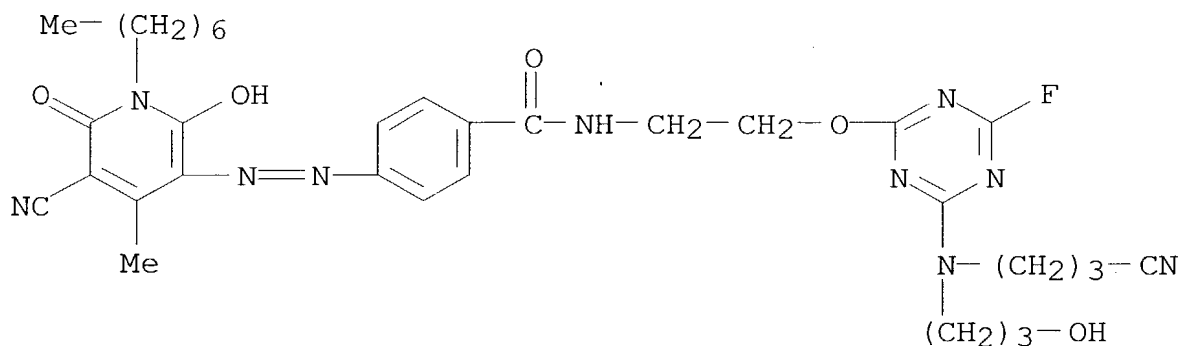
RN 98233-73-9 ZCAPLUS

CN Benzamide, N-[2-[[4-amino-6-fluoro-1,3,5-triazin-2-yl]oxy]ethyl]-2-[(5-cyano-1,6-dihydro-2-hydroxy-4-methyl-1-octadecyl-6-oxo-3-pyridinyl)azo]- (9CI) (CA INDEX NAME)



RN 98253-43-1 ZCAPLUS

CN Benzamide, 4-[(5-cyano-1-heptyl-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]-N-[2-[[4-[(3-cyanopropyl)(3-hydroxypropyl)amino]-6-fluoro-1,3,5-triazin-2-yl]oxy]ethyl]- (9CI) (CA INDEX NAME)



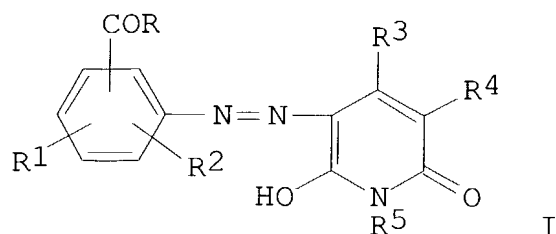
IT 98233-36-4 98233-37-5 98233-44-4
 98233-45-5 98233-47-7 98233-48-8
 98233-73-9 98253-43-1

(reactive disperse dye, for polyester-cotton fabric)

L21 ANSWER 24 OF 34 ZCAPLUS COPYRIGHT 2004 ACS on STN

1983:36089 Document No. 98:36089 Azo dyes for coloring coating compositions, organic solvents and mineral oil products. Loeffler, Hermann (BASF A.-G., Fed. Rep. Ger.). Ger. Offen. DE 3111648 A1 19821007, 19 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1981-3111648 19810325.

GI



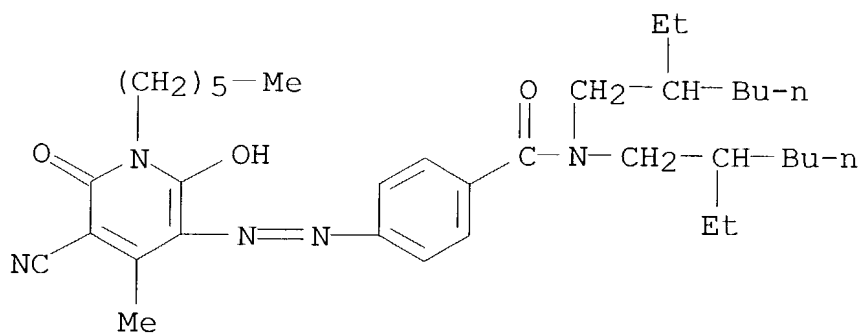
AB Azo dyes (I; R = OR₆, NR₆R₇; R₁ = H, Cl, Br, Me, MeO; R₂ = H, Cl, Br; R₃ = H, Cl-3 alkyl; R₄ = H, CN, COR, COR₈; R₆, R₇ = optionally substituted alkyl, alkoxy, alkenyl; R₅ = H, R₆, R₇; R₈ = Cl-3 alkyl; the sum of C atoms in R₅, R₆, and R₇ = 10-36 and the no. of ether linkages = 0-2) are prepd. and used to color solvents, coating materials, inks, and fuels lightfast greenish yellow shades. Thus, p-aminobenzoic acid bis(2-ethylhexyl)amide [84166-90-5] was diazotized and coupled with 1-hexyl-2-hydroxy-3-cyano-4-methyl-6-pyridone [84166-92-7] to give I[R = N(CH₂CH₂EtBu)₂ (4-position), R₁ = R₂ = H, R₃ = Me, R₄ = CN, R₅ = hexyl] [84166-98-3], with excellent soly. in org. solvents.

IT **84166-98-3**

(dyes, for inks and solvents, prepn. of)

RN 84166-98-3 ZCAPLUS

CN Benzamide, 4-[(5-cyano-1-hexyl-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]-N,N-bis(2-ethylhexyl)- (9CI) (CA INDEX NAME)

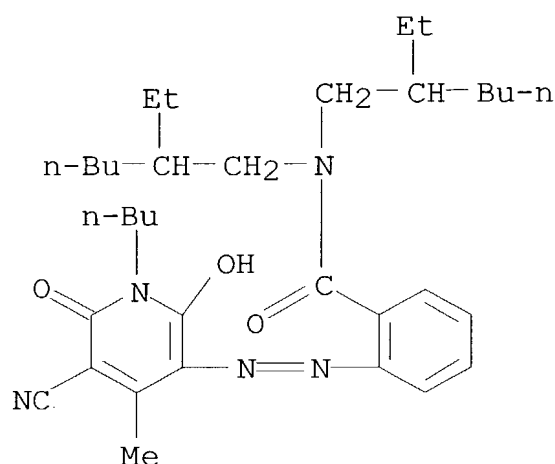


IT **84166-95-0**

(dyes, for inks, prepn. of)

RN 84166-95-0 ZCAPLUS

CN Benzamide, 2-[(1-butyl-5-cyano-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]-N,N-bis(2-ethylhexyl)- (9CI) (CA INDEX NAME)



IT 84166-98-3

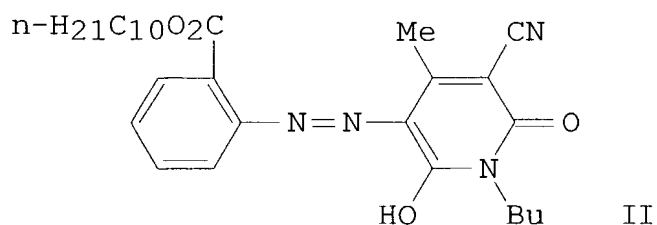
(dyes, for inks and solvents, prepn. of)

IT 84166-95-0

(dyes, for inks, prepn. of)

L21 ANSWER 25 OF 34 ZCAPLUS COPYRIGHT 2004 ACS on STN
 1981:408726 Document No. 95:8726 Dyeing and printing
 cellulose-containing textile material. Loeffler, Hermann;
 Juenemann, Werner; Lamm, Gunther (BASF A.-G., Fed. Rep. Ger.). Ger.
 Offen. DE 2929763 19810219, 46 pp. (German). CODEN: GWXXBX.
 APPLICATION: DE 1979-2929763 19790723.

GI



AB Cotton and cotton-polyester fabrics are dyed, in the presence of a swelling agent and dye solvent, e.g. polyethylene glycol (I) [25322-68-3] with monoazo dyes prepd. by coupling diazotized pyridone, pyrazole, or indole derivs. with aminobenzoic acid esters. Thus, a 35:65 cotton-polyester fabric was impregnated with a liquor contg. yellow disperse dye (II) [77739-09-4], I, and ethoxylated hexamethylenediamine [39968-51-9], dried 60 s at 120°, heated 60 s at 215°, rinsed, and soaped. The fabric was dyed

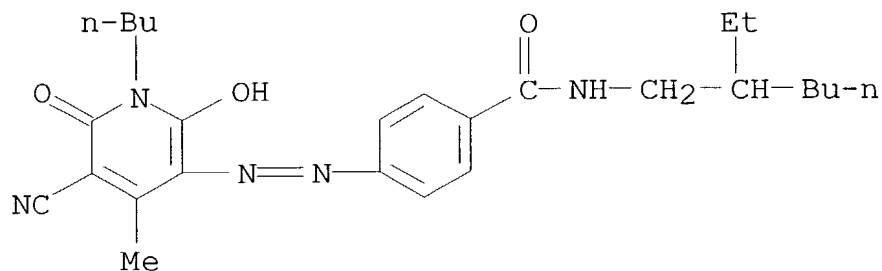
a yellow shade with good fastness to light, washing, and wet processing.

IT 77739-07-2

(dyes, for cotton and cotton-polyester textiles)

RN 77739-07-2 ZCAPLUS

CN Benzamide, 4-[(1-butyl-5-cyano-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]-N-(2-ethylhexyl)- (9CI) (CA INDEX NAME)

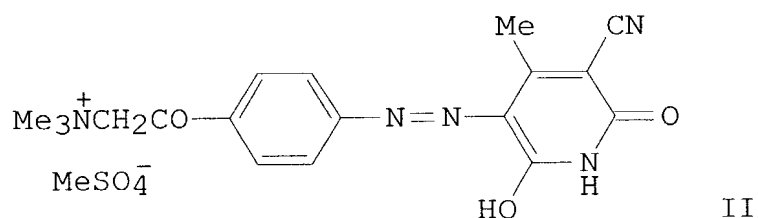
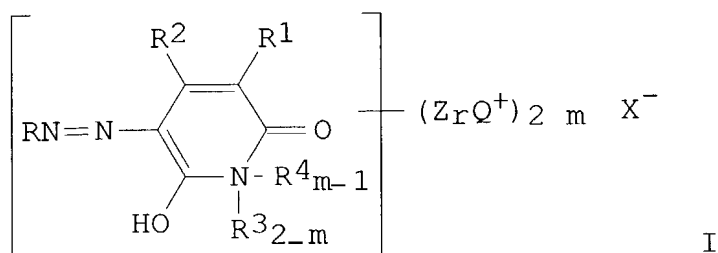


IT 77739-07-2

(dyes, for cotton and cotton-polyester textiles)

L21 ANSWER 26 OF 34 ZCAPLUS COPYRIGHT 2004 ACS on STN
1980:587740 Document No. 93:187740 Cationic 5-arylazo-6-hydroxypyridone-2 dyes. Entschel, Roland; Mueller, Curt; Steinemann, Willy (Sandoz A.-G., Switz.). U.S. US 4213898 19800722, 34 pp. Cont.-in-part of U.S. Ser. No. 824,298, abandoned. (English). CODEN: USXXAM. APPLICATION: US 1973-400527 19730925.

GI



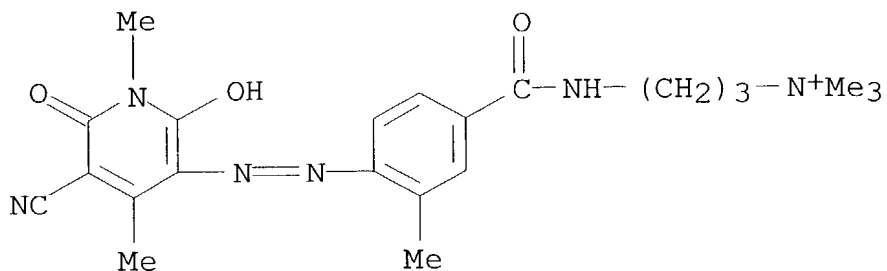
AB Water-sol. dyes (I) giving fast shades on acrylic fibers are prepd., where R = arom. carbocyclic or heterocyclic group, R¹ = H or CN, R² = optionally substituted alkyl, aryl, or heterocyclyl, R³ = H or optionally substituted hydrocarbonyl, heterocyclyl, or amino, R⁴ = quaternized N-contg. heterocyclyl, m = 1 or 2, Z = divalent bridging group, r = 0 or 1, Q⁺ = optionally substituted ammonium, hydrazinium or quaternized N-contg. heterocyclyl, and X⁻ = anion. Thus, 4-amino- ω -(dimethylamino)acetophenone [28799-80-6] was diazotized and coupled with 5-cyano-2,6-dihydroxy-4-methylpyridine [5444-02-0], and the resulting azo compd. [37710-82-0] was treated with Me₂SO₄ to give II [30506-77-5], a greenish yellow dye for acrylic fibers. Numerous other I were similarly prepd.

IT 30506-85-5P 30531-80-7P 40859-28-7P
75352-47-5P

(manuf. of, as dye for acrylic fibers)

RN 30506-85-5 ZCAPLUS

CN 1-Propanaminium, 3-[[[4-[(5-cyano-1,6-dihydro-2-hydroxy-1,4-dimethyl-6-oxo-3-pyridinyl)azo]-3-methylbenzoyl]amino]-N,N,N-trimethyl-, chloride (9CI) (CA INDEX NAME)

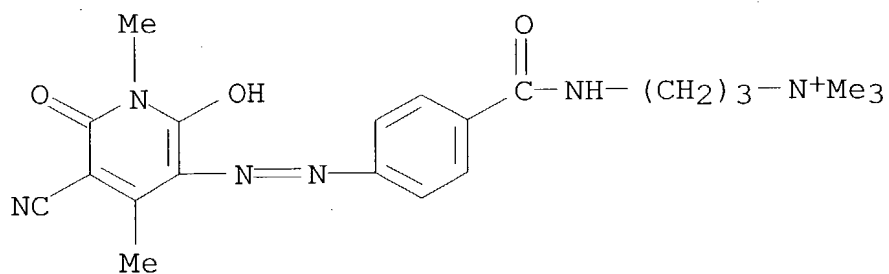


● Cl⁻

RN 30531-80-7 ZCAPLUS
 CN 1-Propanaminium, 3-[[4-[(5-cyano-1,6-dihydro-2-hydroxy-1,4-dimethyl-6-oxo-3-pyridinyl)azo]benzoyl]amino]-N,N,N-trimethyl-, methyl sulfate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 47653-03-2
 CMF C21 H27 N6 O3



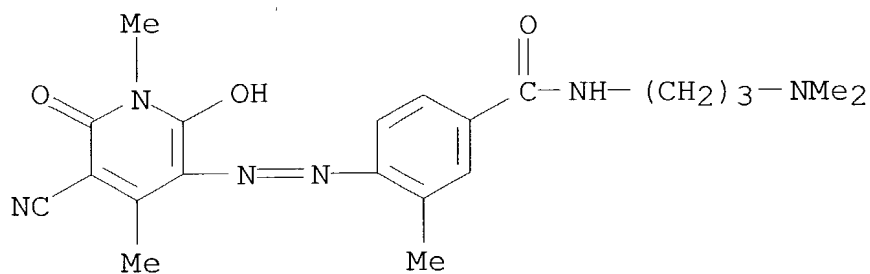
CM 2

CRN 21228-90-0
 CMF C H3 O4 S

Me-O-SO₃⁻

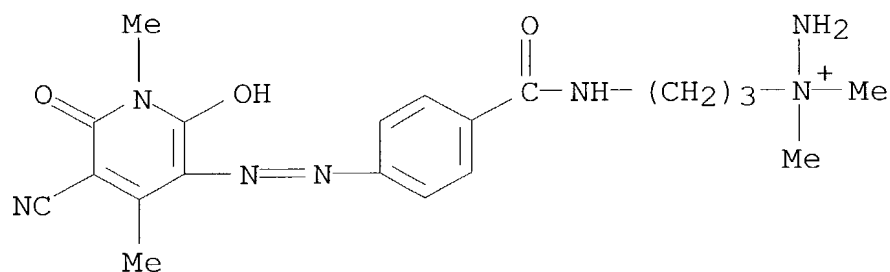
RN 40859-28-7 ZCAPLUS

CN Benzamide, 4-[(5-cyano-1,6-dihydro-2-hydroxy-1,4-dimethyl-6-oxo-3-pyridinyl)azo]-N-[3-(dimethylamino)propyl]-3-methyl- (9CI) (CA INDEX NAME)



RN 75352-47-5 ZCAPLUS

CN Hydrazinium, 1-[3-[[4-[(5-cyano-1,6-dihydro-2-hydroxy-1,4-dimethyl-6-oxo-3-pyridinyl)azo]benzoyl]amino]propyl]-1,1-dimethyl-, chloride (9CI) (CA INDEX NAME)

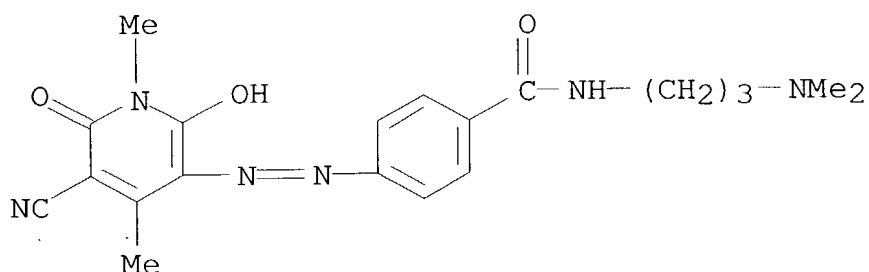


● Cl⁻

IT **75352-48-6P**
(prepn. and quaternization with di-Me sulfate)

RN 75352-48-6 ZCAPLUS

CN Benzamide, 4-[(5-cyano-1,6-dihydro-2-hydroxy-1,4-dimethyl-6-oxo-3-pyridinyl)azo]-N-[3-(dimethylamino)propyl]- (9CI) (CA INDEX NAME)



IT 30506-85-5P 30531-80-7P 40859-28-7P
75352-47-5P

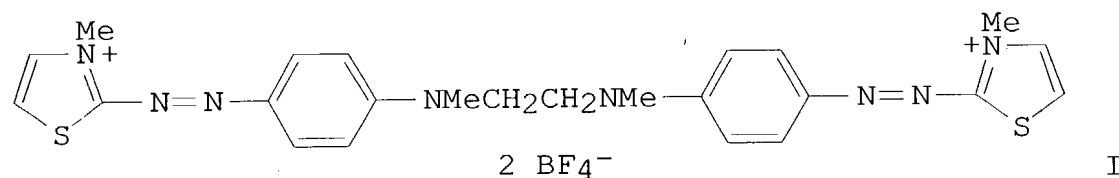
(manuf. of, as dye for acrylic fibers)

IT 75352-48-6P

(prepn. and quaternization with di-Me sulfate)

L21 ANSWER 27 OF 34 ZCAPLUS COPYRIGHT 2004 ACS on STN
1980:130534 Document No. 92:130534 Spin-dyeing polymers or mixed
polymers of acrylonitrile. Haehnke, Manfred; Mohr, Reinhard;
Hohmann, Kurt (Hoechst A.-G., Fed. Rep. Ger.). Ger. Offen. DE
2822913 19791129, 80 pp. (German). CODEN: GWXXBX. APPLICATION: DE
1978-2822913 19780526.

GI



I

AB Acrylic fibers were dyed fast shades by the addn. to the spinning bath of cationic dyes having a migration factor (M) ≤ 20 , a combination no. (K) < 2.5 , and a cation wt. > 310 . These dyes show little bleeding in coagulation, drawing, and washing. Thus, 2-8 parts 5% soln. of dye (I) [72971-14-3], (M = 2, K = 1-2, cation wt. 492) was added to 100 parts 28% DMF soln. of 94:5:1 acrylonitrile-Me acrylate-Na methallylsulfonate polymer [26658-88-8], the blue-violet soln. was spun into 50% aq. DMF, stretched, and washed to give a deeply-dyed, bluish violet fiber with good fastness. Bleeding in the coagulation, drawing, and washing baths was 0.08, 0.04, and $< 0.01\%$, resp.

IT 72970-15-1

(spin dyeing of acrylic fibers by)

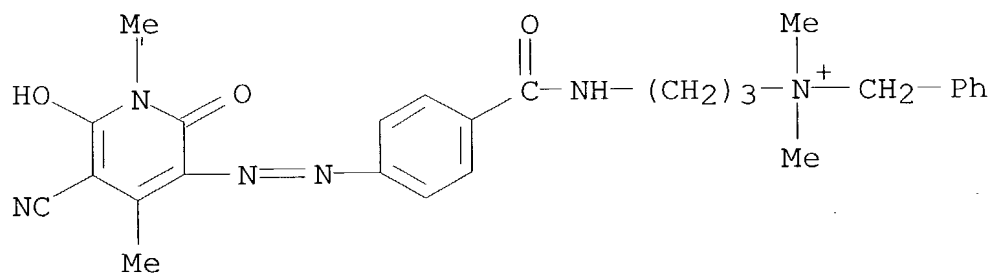
RN 72970-15-1 ZCAPLUS

CN Benzenemethanaminium, N-[3-[[4-[(5-cyano-1,2-dihydro-6-hydroxy-1,4-dimethyl-2-oxo-3-pyridinyl)azo]benzoyl]amino]propyl]-N,N-dimethyl-, methyl sulfate (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 72970-14-0

CMF C27 H31 N6 O3



CM 2

CRN 21228-90-0

CMF C H3 O4 S

Me-O-SO₃⁻

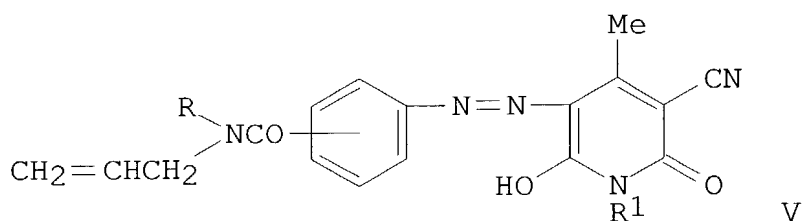
IT 72970-15-1

(spin dyeing of acrylic fibers by)

L21 ANSWER 28 OF 34 ZCAPLUS COPYRIGHT 2004 ACS on STN

1980:43269 Document No. 92:43269 Pyridone azo dyes. Imahori, Seiichi; Himeno, Kiyoshi; Abe, Katsumi (Mitsubishi Chemical Industries Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 54102328 19790811 Showa, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1978-9156 19780130.

GI



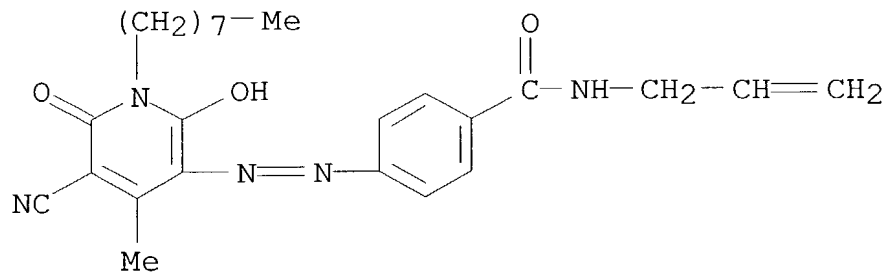
AB CH₂:CHCH₂NRCOC₆H₄NH₂ (R = H, allyl) was diazotized, coupled with 3-cyano-6-hydroxy-4-methyl-2-pyridone (I) [5444-02-0] and alkylated with R₂SO₃R₁ (R₁ = C₄-12 alkyl, PhCH₂, PhCH₂CH₂) or R₁R₃ (R₃ = Cl, Br, I) to give II in high yields and II were used for dyeing polyester fibers in greenish yellow shades. For example, p-CH₂:CHCH₂NHCOC₆H₄NH₂ (III) [72362-91-5] was diazotized, coupled with I, and treated with C₈H₁₇I [629-27-6] to give II (R = H, R₁ = C₈H₁₇, p-bonding) [71599-85-4] in 89% overall yield, compared with 78% for coupling diazotied III with 3-cyano-6-hydroxy-4-methyl-1-octyl-2-pyridone.

IT 71599-85-4 72362-96-0 72362-98-2
72362-99-3 72363-00-9 72363-01-0
72363-02-1 72379-67-0

(dyes, for polyester fibers, manuf. of, with improved yield)

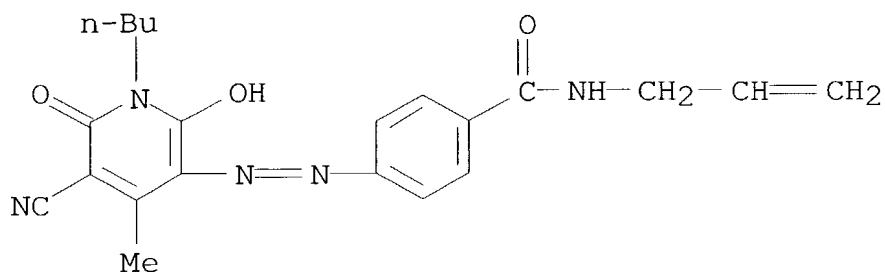
RN 71599-85-4 ZCAPLUS

CN Benzamide, 4-[(5-cyano-1,6-dihydro-2-hydroxy-4-methyl-1-octyl-6-oxo-3-pyridinyl)azo]-N-2-propenyl- (9CI) (CA INDEX NAME)



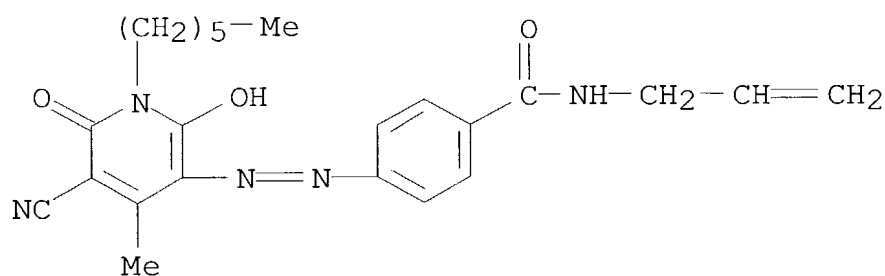
RN 72362-96-0 ZCAPLUS

CN Benzamide, 4-[(1-butyl-5-cyano-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]-N-2-propenyl - (9CI) (CA INDEX NAME)



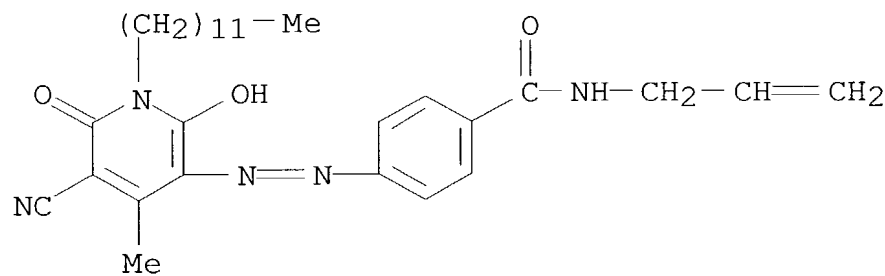
RN 72362-98-2 ZCAPLUS

CN Benzamide, 4-[(5-cyano-1-hexyl-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]-N-2-propenyl- (9CI) (CA INDEX NAME)



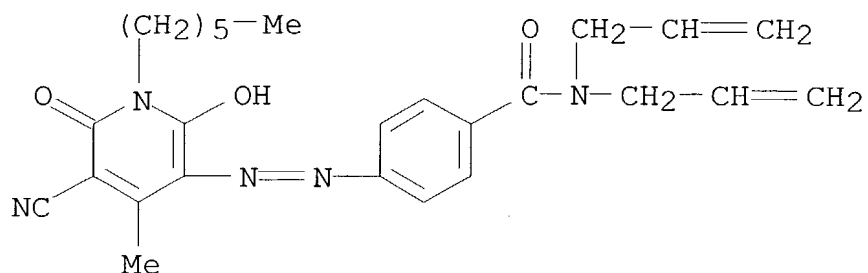
RN 72362-99-3 ZCAPLUS

CN Benzamide, 4-[(5-cyano-1-dodecyl-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]-N-2-propenyl- (9CI) (CA INDEX NAME)



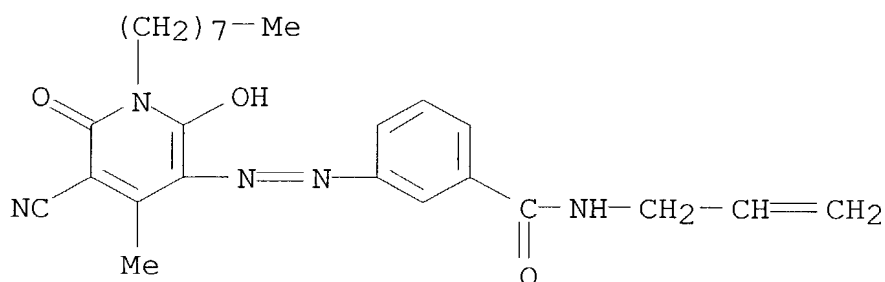
RN 72363-00-9 ZCAPLUS

CN Benzamide, 4-[(5-cyano-1-hexyl-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]-N,N-di-2-propenyl- (9CI) (CA INDEX NAME)



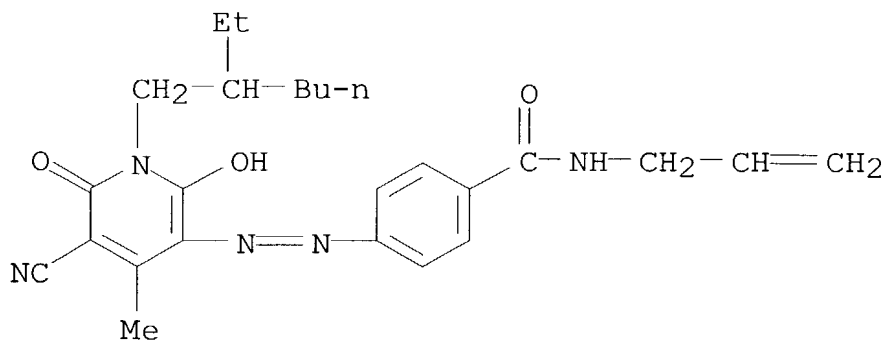
RN 72363-01-0 ZCAPLUS

CN Benzamide, 3-[(5-cyano-1,6-dihydro-2-hydroxy-4-methyl-1-octyl-6-oxo-3-pyridinyl)azo]-N-2-propenyl- (9CI) (CA INDEX NAME)



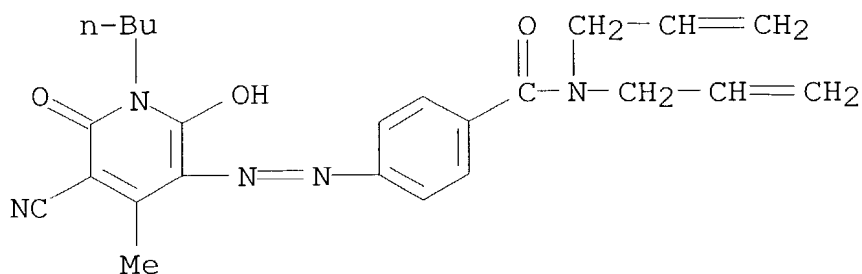
RN 72363-02-1 ZCAPLUS

CN Benzamide, 4-[[5-cyano-1-(2-ethylhexyl)-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl]azo]-N-2-propenyl- (9CI) (CA INDEX NAME)



RN 72379-67-0 ZCAPLUS

CN Benzamide, 4-[(1-butyl-5-cyano-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]-N,N-di-2-propenyl- (9CI) (CA INDEX NAME)

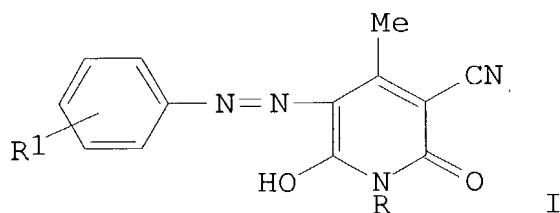


IT 71599-85-4 72362-96-0 72362-98-2
 72362-99-3 72363-00-9 72363-01-0
 72363-02-1 72379-67-0

(dyes, for polyester fibers, manuf. of, with improved yield)

L21 ANSWER 29 OF 34 ZCAPLUS COPYRIGHT 2004 ACS on STN
 1979:559034 Document No. 91:159034 Pyridone azo dyes. Imahori,
 Seiichi; Himeno, Kiyoshi; Abe, Katsumi (Mitsubishi Chemical
 Industries Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 54070337
 19790606 Showa, 12 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP
 1977-137609 19771116.

GI

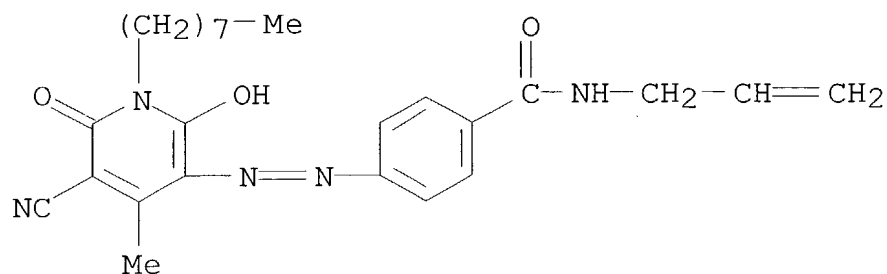


AB I derivs. (R = H, R1 = substituent) were alkylated to give dyes,
 bright greenish yellow on polyester fibers. For example, I (R = H,
 R1 = 4-MeO2C) [71599-93-4] was treated with n-octyl-p-
 toluenesulfonate [3386-35-4] in the presence of Na2CO3 in
 N-methylpyrrolidone to give I(R = n-C8H17, R1 = 4-MeO2C)
 [71599-92-3].

IT 71599-85-4
 (dyes, for polyester fibers, manuf. of)

RN 71599-85-4 ZCAPLUS

CN Benzamide, 4-[(5-cyano-1,6-dihydro-2-hydroxy-4-methyl-1-octyl-6-oxo-
 3-pyridinyl)azo]-N-2-propenyl- (9CI) (CA INDEX NAME)



IT 71599-85-4

(dyes, for polyester fibers, manuf. of)

L21 ANSWER 30 OF 34 ZCAPLUS COPYRIGHT 2004 ACS on STN
 1976:61178 Document No. 84:61178 Pyridone dyes. Gnad, Gerhard; Lamm,
 Gunther (BASF A.-G., Fed. Rep. Ger.). Ger. Offen. DE 2418087
 19751106, 10 pp. (German). CODEN: GWXXBX. APPLICATION: DE
 1974-2418087 19740413.

GI For diagram(s), see printed CA Issue.

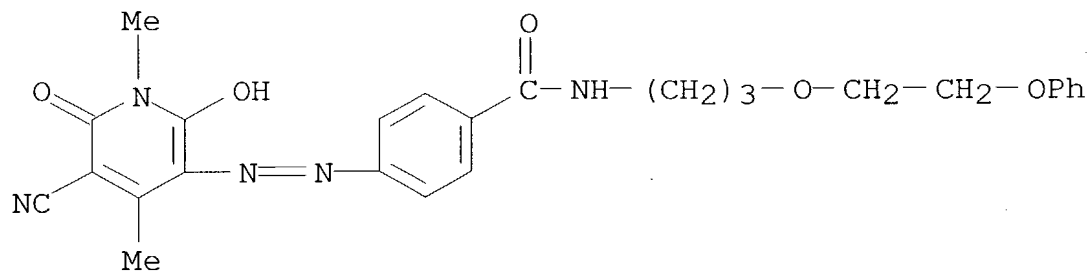
AB Azo dyes (I, R = H, Me, R1 = Me, Et; Z = CO, SO2) were prep'd. and
 dyed acetate and polyester fibers fast greenish yellow shades.
 Thus, PhOCH2CH2OCH2CH2CH2NHCOC6H4NH2-4 [57966-93-5] was diazotized
 and coupled with 3-cyano-2-hydroxy-1,4-dimethyl-6-pyridone
 [39621-10-8] to give I (R = H, R1 = Me, Z = CO) [57966-94-6
]. The other I were similarly prep'd.

IT 57966-94-6

(dye, for acetate and polyester fibers, prepn. of)

RN 57966-94-6 ZCAPLUS

CN Benzamide, 4-[(5-cyano-1,6-dihydro-2-hydroxy-1,4-dimethyl-6-oxo-3-
 pyridinyl)azo]-N-[3-(2-phenoxyethoxy)propyl]- (9CI) (CA INDEX NAME)



IT 57966-94-6

(dye, for acetate and polyester fibers, prepn. of)

L21 ANSWER 31 OF 34 ZCAPLUS COPYRIGHT 2004 ACS on STN
 1975:99928 Document No. 82:99928 Dyeing of textiles containing

cellulose fibers. Greenhalgh, Colin W.; Newton, David F.; Eckersley, Dennis; Cheetham, Ian; Phillips, Duncan Adrian S.; Dunkerley, Kenneth; Williams, Gerald; Chokshi, Vibhas (Imperial Chemical Industries Ltd.). Ger. Offen. DE 2419872 19741107, 73 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1974-2419872 19740424.

GI For diagram(s), see printed CA Issue.

AB Cellulosic fibers or their blends with polyesters are dyed by heating with unsulfonated dyes contg. cyclic anhydrides or the corresponding free acids, amine salts, monoesters, or monoamides. Thus, coupling the diazonium salt from 2.175 parts 4-aminophthalic acid hydrochloride [54229-32-2] with 1.75 parts 3-methyl-1-phenyl-5-pyrazolone [89-25-8] in 10 parts H₂O and 30 parts 2N NaOH at 0° gives 3.5 parts azo dye (I) [54307-25-4]. Cotton is padded with aq. I, dried, treated with dil. H₂SO₄, rinsed, dried, and heated 2 min at 210° to give a yellow dyeing with excellent washfastness, from which the dye is not extd. by successive 10 min. treatments with DMF, pyridine, and aq. pyridine.

IT 54229-38-8

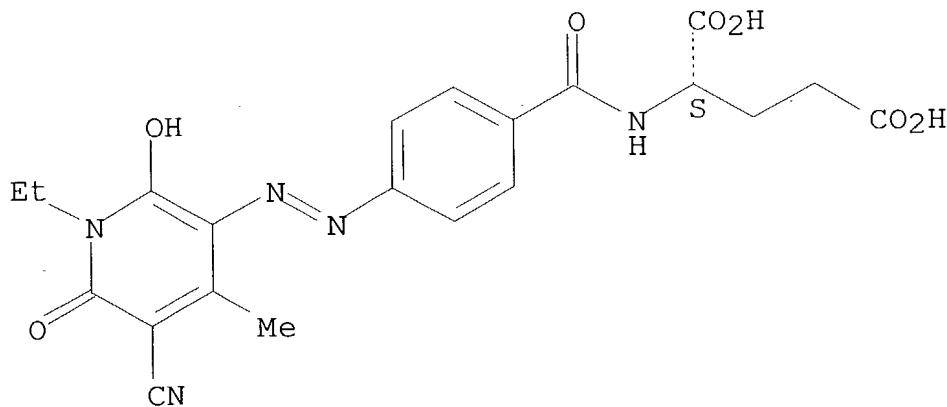
(reactive dyes, for cellulosic fibers)

RN 54229-38-8 ZCAPLUS

CN L-Glutamic acid, N-[4-[(5-cyano-1-ethyl-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl)azo]benzoyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry unknown.



IT 54229-38-8

(reactive dyes, for cellulosic fibers)

L21 ANSWER 32 OF 34 ZCAPLUS COPYRIGHT 2004 ACS on STN

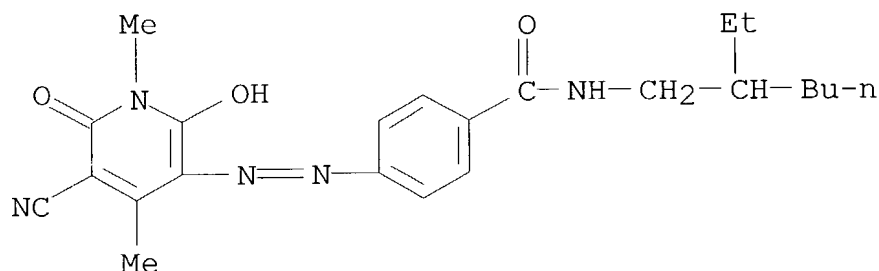
1974:427186 Document No. 81:27186 Pyridone azo dye. Lamm, Gunther; Preugschas, Helmut (BASF AG). Ger. Offen. DE 2224447 19731129, 8 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1972-2224447 19720519.

AB The yellow dye (I) [30449-81-1] of dyeing-stable cryst. modification and useful for polyester fiber dyeing was prepd. by coupling of diazotized 4-H₂NC₆H₄CONHCH₂CH₂EtBu with 3-cyano-2-hydroxy-1,4-dimethyl-6-pyridinone at pH >7 and heating the resulting aq. dispersion .sim.2 hr at 80-5.deg. or by heating I of dyeing-unstable cryst. modification in water at 80.deg. or in refluxing MeOH.

IT **30449-81-1**
(cryst. modification of, dyeing-stable)

RN 30449-81-1 ZCAPLUS

CN Benzamide, 4-[(5-cyano-1,6-dihydro-2-hydroxy-1,4-dimethyl-6-oxo-3-pyridinyl)azo]-N-(2-ethylhexyl)- (9CI) (CA INDEX NAME)



IT **30449-81-1**
(cryst. modification of, dyeing-stable)

L21 ANSWER 33 OF 34 ZCAPLUS COPYRIGHT 2004 ACS on STN
1973:73616 Document No. 78:73616 Basic azo dyes. Burkhard, Hermann;
Entschel, Roland; Mueller, Curt; Steinemann, Willy (Sandoz Ltd.).
Ger. Offen. DE 1966451 19720928, 50 pp. Division of Ger. 1924770
(German). CODEN: GWXXBX. APPLICATION: DE 1969-1966451 19690514.

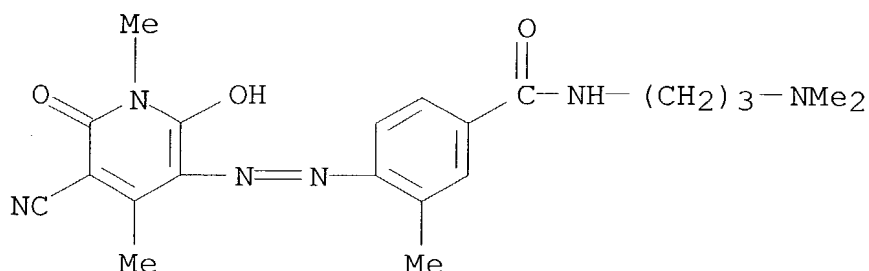
AB Thirteen basic azo dyes (I), where X = 2-thiazolyl, Ph, or substituted phenyl including azo substitution, R = H, alkyl, or heterocyclic group, and X or R contains a salt-forming tertiary amino group, were prepd. and used to dye polyacrylonitrile fiber light- and wetfast yellow shades. Thus, 4-H₂NC₆H₄COCH₂NMe₂ was diazotized and coupled with 2,6-dihydroxy-4-methyl-5-cyanopyridine to give azo dye I (X = 4-Me₂NCH₂COC₆H₄, Y = H) [36986-04-6]. 4,2-Me(O₂N)C₆H₃NH₂ was diazotized and coupled with 1-(4-methyl-1-piperazinyl)-2-oxo-3-cyano-4-methyl-6-hydroxy-1,2-dihydropyridine to give azo dye I[X = 4,2-Me(O₂N)C₆H₃, Y = 4-methyl-1-piperazinyl] [3956-55-6]. The other I were similarly prepd.

IT **40859-28-7P**
(prepn. of)

RN 40859-28-7 ZCAPLUS

CN Benzamide, 4-[(5-cyano-1,6-dihydro-2-hydroxy-1,4-dimethyl-6-oxo-3-

pyridinyl)azo]-N-[3-(dimethylamino)propyl]-3-methyl- (9CI) (CA INDEX NAME)



IT 40859-28-7P
(prepn. of)

L21 ANSWER 34 OF 34 ZCAPLUS COPYRIGHT 2004 ACS on STN
1971:43514 Document No. 74:43514 3-Phenylazo-2-pyridone dyes. Gnad, Gerhard (Badische Anilin- & Soda-Fabrik AG). Ger. Offen. DE 1917278 19701105, 25 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1969-1917278 19690403.

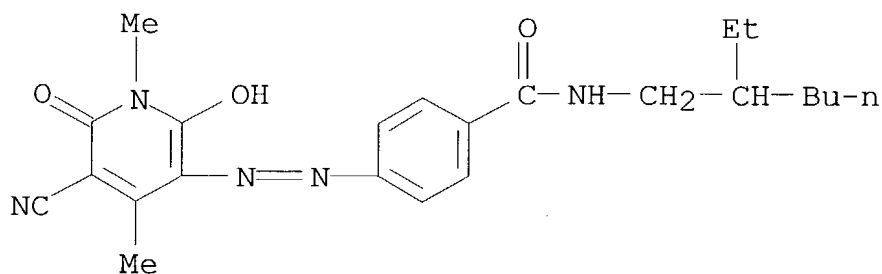
GI For diagram(s), see printed CA Issue.

AB The title dyes [I, R = Me, or (CH₂)₃OMe(Q)] which dye polyester or cellulose acetate fibers fast greenish yellow to orange shades, were prepd. by coupling diazotized R1C₆H₄NH₂ with the corresponding 2-pyridones. Thus, o-H₂NC₆H₄CO₂Me was diazotized and coupled with 1-(γ-methoxypropyl)-3-methyl-5-cyano-6-hydroxy-2-pyridone to give I (R = Q, R₁ = 2-MeO₂C), which dyed poly(ethylene terephthalate) textiles greenish yellow with good fastness to light and heat. Similarly 7 other I were prepd.

IT 30449-81-1P 30502-43-3P
(prepn. of)

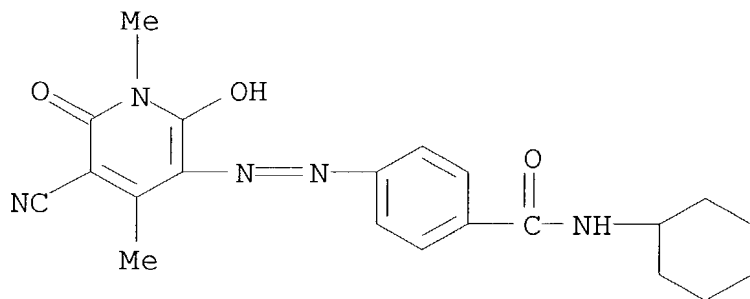
RN 30449-81-1 ZCAPLUS

CN Benzamide, 4-[(5-cyano-1,6-dihydro-2-hydroxy-1,4-dimethyl-6-oxo-3-pyridinyl)azo]-N-(2-ethylhexyl)- (9CI) (CA INDEX NAME)



RN 30502-43-3 ZCAPLUS

CN Benzamide, p-[(5-cyano-1,6-dihydro-2-hydroxy-1,4-dimethyl-6-oxo-3-pyridyl)azo]-N-cyclohexyl- (8CI) (CA INDEX NAME)

IT 30449-81-1P 30502-43-3P
(prepn. of)

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